

APPLIED ECOLOGY

Highgate School Biodiversity Enhancement Plan

Biodiversity Net Gain Assessment

Client: Highgate School

Project number: AEL0983

Date: August 2025

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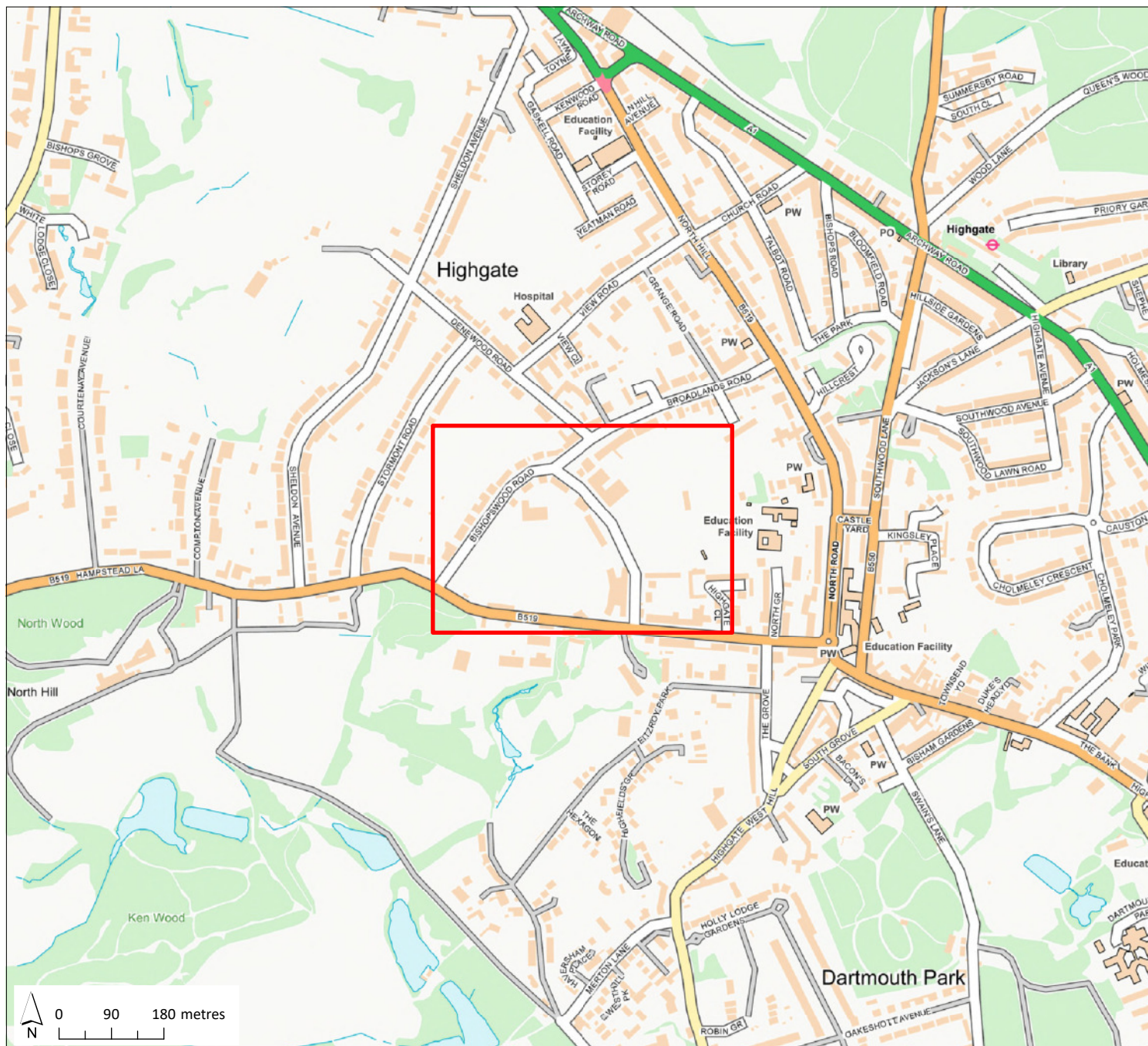


1 Introduction

Background

- 1.1 Applied Ecology Ltd (AEL) was appointed by Highgate School to prepare Statutory Biodiversity Metric calculations in relation to a series of biodiversity enhancements of land at Highgate School, London (“the Site”). The location of the Site is shown in **Figure 1.1**.
- 1.2 The areas selected for potential enhancement are shown in the Biodiversity Enhancement Plans provided in **Appendix A**. It is possible that the proposed enhancements could be used to offset any potential biodiversity losses for future developments at the school.





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AEL0983_01-01-00_SiteLocation_202401311 A4 20/08/2025

Highgate School Biodiversity Enhancement Plan

Site location

 Site location

Figure 1.1

Map Scale @ A4: 1:10,000

Surveyed by: n/a

Survey date: n/a

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2 Statutory Biodiversity Metric Calculations

Introduction

- 2.1 The biodiversity impact of the proposed development has been assessed using the Statutory Biodiversity Metric calculation tool¹, which compares the relative biodiversity value of the habitats before and after development. The Metric assesses the impact on linear habitat features (such as hedgerows and ditches), and rivers independently. The full Statutory Biodiversity Metric calculator is provided as a separate Excel spreadsheet

Habitat Survey

- 2.2 A baseline habitat survey was completed by AEL ecologist Richard Dale MCIEEM² on 30 November 2023, with an update survey completed by RD on 26 June 2024. The areas subject to survey are shown in **Figure 2.1**. During the survey the habitats present were classified according to the UKHab / Biodiversity Metric habitat classification system, with habitat condition assessed in the field using the appropriate habitat condition assessment sheets (see **Appendix B**).

Baseline Conditions

- 2.3 The baseline habitats were predominantly amenity grassland (*Grassland: Modified grassland*), either part of playing fields or other recreational/amenity areas, and species-poor, subject to a regular mowing regime and recreational use. As such, these were assessed as being of *poor* condition in line with the relevant condition assessment criteria.
- 2.4 In addition to amenity grassland, there were small areas of bare ground and developed land (both sealed surface and unsealed surface) of negligible biodiversity value.
- 2.5 The baseline habitat map is shown by **Figure 2.2**.
- 2.6 Overall, the pre-development baseline habitat value of the combined enhancement areas was calculated as **0.58 habitat units** as detailed in **Table 2.1** below.

Table 2.1: Baseline habitats.

Habitat (UKHab)	Distinctiveness	Condition	Area (ha)	Habitat unit value
Grassland: Modified grassland	Low (2)	Poor (1)	0.291	0.58
Urban: Artificial unvegetated, unsealed surface	Very Low (0)	N/A (0)	0.038	0
Urban: Bare ground	Low (2)	Poor (1)	0.003	0.01
Urban: Developed land; sealed surface	Very Low (0)	N/A (0)	0.004	0

¹ Available from [Statutory biodiversity metric tools and guides - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/statutory-biodiversity-metric-tools-and-guides) Accessed on 19/08/2025.

² Level 4 Botanical Society of Britain and Ireland (BSBI) Field Identification Skills Certificate.



Development Impact and Post-intervention Habitats

Grassland: Other neutral grassland

- 2.7 The post-intervention habitats predominantly comprise species-rich wildflower grassland (*Grassland: Other neutral grassland*). It is considered likely that through appropriate management these should be able to attain at least *moderate* condition (by achieving at least three of the relevant condition assessment criteria – see **Appendix B**). It is, however, conceivable that at least five assessment criteria, including the two compulsory criteria (A and F) could be achieved with careful management – this would ensure the grassland attains *good* condition. Management should target:

- Grassland that has >20% cover of broadleaved herbs and sedges;
- >10 species per m², including forbs characteristic of this habitat (excluding species indicative of sub-optimal condition);
- ≥1 grass species that is not generally sown for intensive agricultural production (i.e., rye-grasses *Lolium* spp., timothy *Phleum pratense*, cock's-foot *Dactylis glomerata*, meadow fescue *Festuca pratensis*) is at least abundant;
- Cover of rye-grasses *Lolium* spp. and white clover *Trifolium repens* is <30%.
- A varied sward height to provide different microclimates;
- Cover of bare ground should be minimal (<5%);
- No bracken or scrub should be present;
- Cover of species indicative of suboptimal condition (see **Appendix B**) and physical damage should account for <5% of the area (and no non-native plant species should be present).

Grassland: Modified grassland

- 2.8 An area of existing species-poor amenity grassland to be planted with a range of bulb species to provide a modest biodiversity uplift. This is considered likely to raise the species diversity above the threshold of moderate condition (six species per m² – see **Appendix B**).

Lakes: Ponds (non-priority habitat)

- 2.9 A single wildlife pond (*Lakes: Ponds (non-priority habitat)*) is proposed. This should target moderate condition by aiming for at least six of the relevant condition assessment criteria (see **Appendix B**). Creation and management should target the following:

- Good water quality;
- Less than 10% of the water surface covered in duckweed or filamentous algae;
- No artificial connection to other waterbodies;
- Water levels should be allowed to fluctuate naturally;
- An absence of non-native plant and animal species;
- No fish;
- Emergent, submerged or floating plants cover at least 50% of the pond surface;
- The pond surface is no more than 50% shaded by adjacent trees and scrub.



Urban: Introduced shrubs

- 2.10 Several areas of unvegetated, unsealed surface (*Urban: Artificial unvegetated, unsealed surface*) are proposed to be planted with a range of bulbs to provide a modest biodiversity benefit. This habitat is represented here by the *Urban: Introduced shrub* habitat type.

Species-rich native hedgerow

- 2.11 A total of 0.516 km of new species-rich native hedgerow is proposed to be planted. This will target moderate condition. To do so, at minimum, it should aim for the following (see **Appendix B** for full condition assessment criteria):
- > 1.5 m average height and width along entire length;
 - Limited gaps between ground and base of canopy, and along length of canopy;
 - >1 m width of undisturbed ground with perennial herbaceous vegetation for 90% of length;
 - An absence of species indicative of nutrient enrichment (nettles *Urtica* spp., cleavers *Galium aparine* and docks *Rumex* spp.), non-native plant species, and damage from human activities.
- 2.12 If the grassland targets moderate condition the post-intervention habitats score a value of **2.05 habitat units**. If the grassland can target good condition, this rises to **2.54 habitat units**. The post-intervention hedgerows score a value of **4.57 hedgerow units** as detailed in **Table 2.3** below.

Table 2.2: Post-intervention habitats.

Habitats (UKHab)	Distinctiveness	Condition	Area (ha)	Habitat unit value
Enhanced habitats				
Grassland: Modified grassland	Low (2)	Moderate (2)	0.009	0.03
New habitats				
Grassland: Other neutral grassland	Medium (4)	Moderate (2) / Good (3)	0.286	1.91 / 2.40
Lakes: Ponds (non-priority habitat)	Medium (4)	Moderate (2)	0.006	0.04
Urban: Developed land, sealed surface	Very low (0)	N/A (0)	0.004	0
Urban: Introduced shrub	Low (2)	N/A (1)	0.030	0.06

Table 2.3: Post-intervention hedgerows.

Habitats (UKHab)	Distinctiveness	Condition	Length (km)	Hedgerow unit value
New habitats				
Species-rich native hedgerow	Medium (4)	Moderate (2)	0.682	4.57

Outcome

- 2.13 The biodiversity net gain assessment of the Highgate School Biodiversity Enhancement Plan is capable of delivering **an overall net gain between +1.46–1.95 habitat units**, depending on the target condition of wildflower grassland areas. This represents **an overall net gain of at least +248%** for these areas.
- 2.14 The proposed new hedgerows will deliver **an overall net gain of +4.57 hedgerow units**. As no hedgerows are present in the baseline assessment, no percentage change can be calculated.



Habitat creation in advance of losses

- 2.15 If these areas are registered as a biodiversity gain site and the proposed enhancements are used as off-site habitat creation to help offset net losses from potential developments elsewhere within the school, it is possible for the habitats to become more valuable if created in advance of any losses attributed to a particular development. An additional multiplier can be applied within the metric to represent the reduced risk of delivery and time to target condition due to the head start from creating the habitat in advance of the losses it is compensating for. The further in advance the habitat can be created, the more units can be achieved; in effect creating the school's own habitat bank to offset potential future losses.
- 2.16 For example, if the habitats described above are created two years prior to the habitat losses they are used as off-site compensation for, they will already have begun to establish by the time of the on-site habitat loss, and the overall net gain achievable from the habitats listed would be **+1.61–2.13 habitat units** (again, depending on the target condition of the grassland) and **+4.90 hedgerow units**. If this time in advance is extended to five years, the overall net gain would increase to **+1.84–2.43 habitat units** and **+5.46 hedgerow units**.





Highgate School Biodiversity Enhancement Plan

Habitat survey areas

 Biodiversity Enhancement Areas

Figure 2.1

Map Scale @ A4: 1:2,818

Surveyed by: n/a

Survey date: n/a

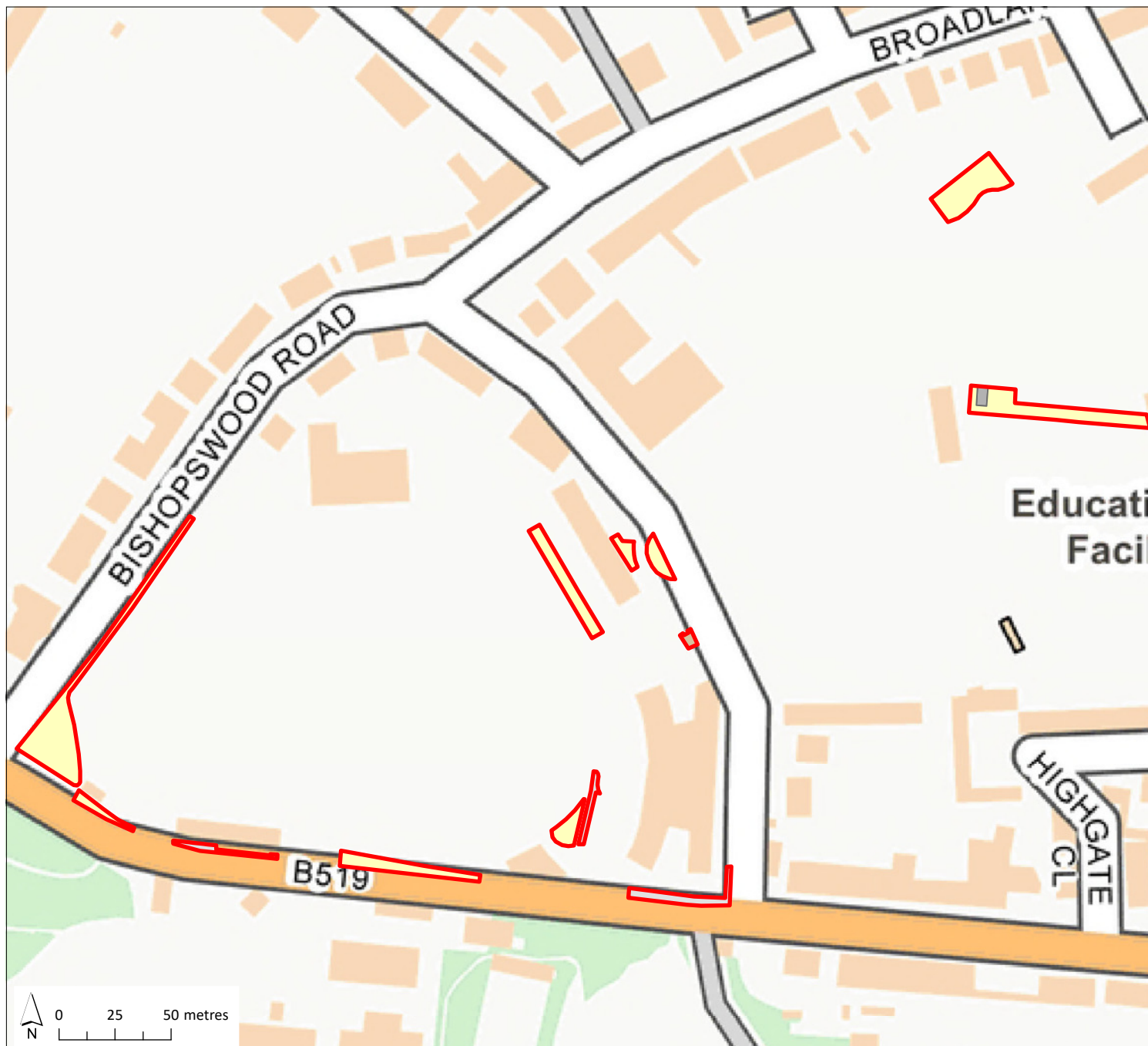
Drawn by: RD

Checked by: DP

Status: Final



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Highgate School Biodiversity Enhancement Plan

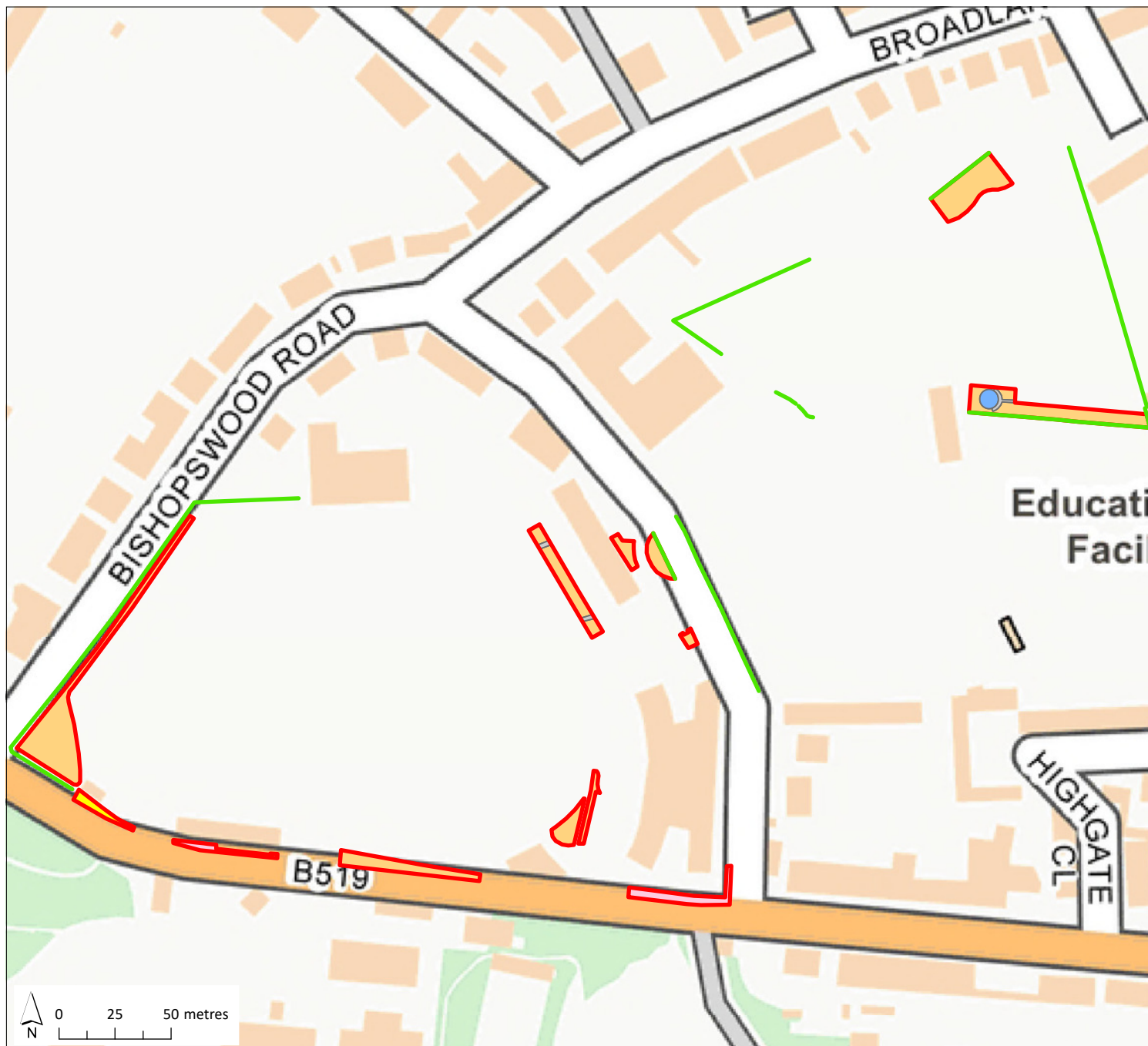
Baseline habitat map

- Biodiversity Enhancement Areas
- Urban: Developed land, sealed surface, n/a
- Urban: Bare ground, poor
- Urban: Artificial unvegetated, unsealed surface, n/a
- Grassland: Modified grassland, poor

Figure 2.2

Map Scale @ A4: 1:2,600

Surveyed by: RD	 APPLIED ECOLOGY
Survey date: 26 June 2024	
Drawn by: RD	
Checked by: DP	
Status: Final	



Highgate School Biodiversity Enhancement Plan

Post-intervention habitat map

- Biodiversity Enhancement Areas
- Grassland: Modified grassland, moderate (enhanced)
- Grassland: Other neutral grassland, moderate/good
- Lakes: Ponds (non-priority habitat), moderate
- Urban: Introduced shrubs, n/a
- Urban: Developed land, sealed surface, n/a
- Species-rich native hedgerow, moderate

Figure 2.3

Map Scale @ A4: 1:2,600

Surveyed by: n/a

Survey date: n/a

Drawn by: RD

Checked by: DP

Status: Final



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Appendix A

Biodiversity Enhancement Plans





NOTES

DO NOT SCALE FROM THIS DRAWING
Contractors, sub-contractors and suppliers are to verify any critical dimensions on site prior to commencing work, fabrication or construction of any elements. Any discrepancies or errors must be brought to the attention of Robert Myers Associates.
All structural elements are shown indicatively. For all elements of structure, refer to structural engineers' and specialist sub-contractor/fabricators' design, detail and specification.
The drawings are to be read in conjunction with all relevant landscape architect, consultant and specialist drawings.

PURPOSE OF ISSUE

Rev:	Date:	Drawing Status:
P1	25.10.23	FOR PLANNING
P2	05.12.23	FOR PLANNING
P3	11.02.25	FOR PLANNING
P4	30.07.25	FOR PLANNING

REVISIONS

Rev:	Date:	Description:
P1	25.10.23	First Issue
P2	05.12.23	Additional wildflowers and bulbs added
P3	11.03.25	Update to masterplan
P4	30.07.25	Updates to baseplan

Highgate School

Client:	Highgate School		
Drawing:	Biodiversity Enhancement Plan		
Project No:	744_01		
Drawing No:	744_01(DP) 001		
Scale:	1:1500 @ A3	Rev:	P4
Date:	October 2023	Drawn:	FR
Checked:	RM	PM Checked:	RM

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DO NOT SCALE FROM THIS DRAWING
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Proposed Emorsgate wildflower meadow:
EW1F Wildflower mix for woodland/shade
EM3F General purpose wildflower mix

Existing hedge

Existing trees

Proposed wildlife pond

Proposed biodiverse green roof:
Wildflower and sedum mixes including low native wildflower plugs

Proposed/recently planted native hedge:
Crataegus monogyna, Prunus spinosa, Cornus sanguinea, Rosa canina

Proposed trees

Proposed bulbs

Annotated Biodiversity Enhancement - Plan

Scale 1:1500 @ A3

P-1

- Mallinson Sports Centre
- Sports Ground
- All-Weather Pitch
- Playing Field
- Orchard Woodland
- Senior Field
- The Mills Centre
- Memorial Garden
- Junior School
- Pre-Preparatory School
- Wildlife Pond
- Existing Cricket Nets
- Wall Climber
- Richards Music Centre
- Hedgerow Infill
- Biodiverse Green Roof



NOTES

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Highgate School		
Client:	Highgate School	
Drawing:	Annotated Biodiversity Enhancement Plan	
Project No:	744_01	
Drawing No:	744_01(DP) 002	
Scale:	1:1500 @ A3	Rev: P4
Date:	October 2023	Drawn: FR
Checked:	RM	PM Checked: RM

-  Proposed Emorsgate wildflower meadow:
EW1F Wildflower mix for woodland/shade
EM3F General purpose wildflower mix
-  Existing hedge
-  Existing trees
-  Proposed wildlife pond
-  Proposed biodiverse green roof:
Wildflower and sedum mixes including low native wildflower plugs
-  Proposed/recently planted native hedge:
Crataegus monogyna, Prunus spinosa, Cornus sanguinea, Rosa canina
-  Proposed trees
-  Proposed bulbs
-  Elements not covered by existing planning applications

1. Mallinson Sports Centre
2. Sports Ground
3. All-Weather Pitch
4. Playing Field
5. Orchard Woodland
6. Senior Field
7. The Mills Centre
8. Memorial Garden
9. Junior School
10. Pre-Preparatory School
11. Wildlife Pond
12. Existing Cricket Nets
13. Wall Climber
14. Richards Music Centre
15. Hedgerow Infilled
16. Biodiverse Green Roof

Appendix B

Habitat Condition Assessment Criteria



Condition Sheet: URBAN Habitat Type	
Condition Assessment Criteria	
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.
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.
C	Invasive non-native plant species (listed on Schedule 9 of WCA ¹) and others which are to the detriment of native wildlife (using professional judgement) ² cover less than 5% of the total vegetated area ³ . Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).
Additional criteria – must be assessed for Open mosaic habitat on previously developed land only	
D1	The parcel shows spatial variation and forms a mosaic of bare substrate PLUS: At least four early successional communities (a) to (i); Communities : (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland, (i) pools.
D2	The parcel contains pools of water such as permanent and ephemeral waterbodies.
Additional Criteria – must be assessed for Bioswale and SuDS habitat types only:	
E1	Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife ⁴ .
E2	The vegetation is comprised of plant species suited to wetland or riparian situations.
Additional criterion – must be assessed for Intensive green roofs only	
F	The roof has a minimum of 50% native and non-native wildflowers. 70% of the roof area is soil and vegetation (including water features).
Additional criterion – must be assessed for Biodiverse green roofs only	
G	The roof has a varied depth of 80–150 mm; at least 50% is at 150 mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers. Note – to achieve Good condition some additional habitat, such as sand piles, stones, logs etc are present.
Condition Assessment Result	
Condition Assessment Score	
Results for Green Roofs and Open mosaic on previously developed land (requiring assessment of four criteria only – core criteria plus additional criterion specified for habitat type)	
Passes all 3 core criteria; AND Meets the requirements for Good condition within criterion C; AND Passes additional criterion relevant to specific habitat type (F or G).	Good (3)
Passes 2 or 3 of 4 criteria; OR Passes 4 of 4 criteria but does not meet the requirements for Good condition within criterion C.	Moderate (2)
Passes 0 or 1 of 4 criteria.	Poor (1)
Results for Bioswale or SuDS (requiring assessment of 5 criteria – core criteria plus additional criteria specified for habitat type)	
Passes all 3 core criteria; AND Meets the requirements for Good condition within criterion C; AND Passes all additional criteria relevant to specific habitat type (E).	Good (3)
Passes 3 or 4 of 5 criteria; OR Passes 5 of 5 criteria but does not meet the requirements for Good condition within criterion C.	Moderate (2)
Passes 2 or fewer of 5 criteria.	Poor (1)
Notes	



Footnote 1 – Wildlife and Countryside Act 1981 (as amended)..

Footnote 2 – Sources of information about detrimental non-native species can be found on the GB Non-native Species Secretariat (GBNNS) website:

[Home » NNSS \(nonnativespecies.org\)](#) and Natural England Access to Evidence page should also be checked for up-to-date information:

[Horizon-scanning for invasive non-native plants in Great Britain - NECR053 \(naturalengland.org.uk\)](#)

For criterion C – For green roof habitat types only – buddleia *Buddleja davidii* should be assessed alongside Schedule 9 species. This species impairs the health of the local ecosystem and reduces the biodiversity potential of the roof. It is also a sign that a roof has not been planted and seeded correctly in subsequent years.

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 – Use professional judgement. Sources of additional information about non-native wildlife can be found online at the GBNNS website:

[Alternative plants » NNSS \(nonnativespecies.org\)](#)

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)

Condition Assessment Criteria

A	There are 6–8 vascular plant species per m ² present, including at least 2 forbs (this may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.
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.
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present. Note – patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.
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.
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.
G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴)

Condition Assessment Result (out of 7 criteria)	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)

Notes

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).

Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)

Condition Assessment Criteria

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 relevant to Footnote 3 suboptimal species which may be listed in the UKHab description) ¹ . Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.
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.
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ² .
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.
E	Combined cover of species indicative of sub-optimal condition 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 ⁴ (as listed on Schedule 9 of WCA ⁵) are present, this criterion is automatically failed.

Additional criterion – must be assessed on 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 (species referenced in Footnote 3 and 4 cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only
---	---

Condition Assessment Result	Condition Assessment Score
Acid Grassland Types (Result out of 5 criteria)	
Passes 5 criteria	Good (3)
Passes 3 or 4 criteria	Moderate (2)
Passes 2 or fewer criteria	Poor (1)
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)

Notes

Footnote 1 – Professional judgment 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 not exceeding 5% cover.

Footnote 3 – Species indicative of sub-optimal 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 judgement.

Footnote 5 – Wildlife and Countryside Act 1981 (as amended).



Condition Sheet: POND Habitat Type	
Condition Assessment Criteria	
Core Criteria – applicable to all ponds (woodland ¹ 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.
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.
C	Less than 10% of the water surface is covered with duckweed <i>Lemna</i> spp. or filamentous algae.
D	The pond is not artificially connected to other waterbodies, such as agricultural ditches or artificial pipework.
E	Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams ² , pumps or pipework.
F	There is an absence of listed non-native plant and animal species ³ .
G	The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.
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.
I	The pond surface is no more than 50% shaded by adjacent trees and scrub.
Condition Assessment Result (out of 8 criteria)	
Condition Assessment Score	
Woodland ponds (assessment out of 7 criteria)	
Passes 7 criteria.	Good (3)
Passes 5 or 6 criteria.	Moderate (2)
Passes 4 or fewer criteria.	Poor (1)
Non-woodland ponds (assessment out of 9 criteria)	
Passes 9 criteria.	Good (3)
Passes 6–8 criteria.	Moderate (2)
Passes 5 or fewer criteria.	Poor (1)
Notes	
Footnote 1 – A woodland pond will be surrounded on all sides by woodland habitat. Footnote 2 – This excludes natural dams such as those created by Eurasian beaver <i>Castor fiber</i>. Footnote 3 – Any species included on the Water Framework Directive (WFD) UKTAG GB High Impact Species List should be absent: WFD UKTAG (2021) Classification of aquatic alien species according to their level of impact [online]. Available from: UKTAG classification of alien species working paper v8.pdf (wfd.uk.org) - Frequently occurring non-native plant species include water fern <i>Azolla filiculoides</i>, Australian swamp stonecrop <i>Crassula helmsii</i>, parrot's feather <i>Myriophyllum aquaticum</i>, floating pennywort <i>Hydrocotyle ranunculoides</i> and Japanese knotweed <i>Reynoutria japonica</i>, giant hogweed <i>Heracleum mantegazzianum</i> (on the bank). - Frequently occurring non-native animals include signal crayfish <i>Pacifastacus leniusculus</i>, zebra mussels <i>Dreissena polymorpha</i>, killer shrimp <i>Dikerogammarus villosus</i>, demon shrimp <i>Dikerogammarus haemobaphes</i>, carp <i>Cyprinus carpio</i>. Footnote 4 – If the pond is seasonal (as in, it dries out in most summers) then emergent species alone are likely to be found.	



Condition Sheet: HEDGEROW Habitat Types			
Condition Assessment Criteria			
Attributes and functional groupings (A, B, C, D and E)		Criteria – the minimum requirements for ‘favourable condition’	Description
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. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is >1.5 m height).
A1	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. Outgrowths (such as blackthorn <i>Prunus spinosa</i> suckers) are only included in the width estimate when they are >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).
B2	Gap – hedger 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. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).
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). Access points and gates contribute to the overall ‘gappiness’ but are not subject to the >5 m criterion (as this is the typical size of a gate).
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).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. 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. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.
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 <i>Urtica</i> spp., cleavers <i>Galium aparine</i> and docks <i>Rumex</i> spp. Their presence, either singly or



			together, does not exceed the 20% cover threshold.
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 WCA3) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website ⁴ , as well as the BSBI website ⁵ where the 'Online Atlas of the British and Irish Flora' ⁶ contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website ⁷ .
D2	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (e.g., excessive hedgerow cutting)
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 ⁸), and there is on average at least one mature, ancient or veteran tree present per 20–50 m 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.
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.
Condition category requirements for hedgerows without trees			Condition Assessment Score
No more than 2 failures in total; AND No more than 1 failure in any functional group.			Good (3)
No more than 4 failures in total; AND Does not fail both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 and C2 = Moderate condition).			Moderate (2)
Fails a total of more than 4 attributes; OR Fails both attributes in more than one functional group (e.g., fails attributes A1, A2, B1 and B2 = Poor condition)			Poor (1)
Condition category requirements for hedgerows with trees			Condition Assessment Score
No more than 2 failures in total; AND No more than 1 failure in any functional group			Good (3)
No more than 5 failures in total; AND Does not fail both attributes in more than one functional group (e.g., fails attributes A1, A2, B1, C2 and E1 = Moderate condition).			Moderate (2)
Fails a total of more than 5 attributes; OR			Poor (1)



Fails both attributes in more than one functional group (e.g., fails attributes A1, A2, B1 and B2 = Poor condition).

Notes

Footnote 1 – DEFRA (2007) Hedgerow Survey Handbook. A standard procedure for local surveys in the UK. [online] Available on:

[layout \(hedgelink.org.uk\)](http://hedgelink.org.uk/layout)

Footnote 2 – STALEY, J.T. ET AL. (2020) Definition of Favourable Conservation Status for Hedgerows. [online] Available on:

[Definition of Favourable Conservation Status for Hedgerows - RP2943 \(naturalengland.org.uk\)](https://naturalengland.org.uk/definition-of-favourable-conservation-status-for-hedgerows-rp2943)

Footnote 3 – Wildlife and Countryside Act 1981 (as amended).

Footnote 4 – CHEFFINGS, C. M. et al. (2005) The Vascular Plant Red Data List for Great Britain. Species Status 7: 1-116. [online] Available on:

[The Vascular Plant Red Data List for Great Britain \(Species Status No. 7\) | JNCC Resource Hub](https://jncc.gov.uk/resources/vascular-plant-red-data-list-for-great-britain-species-status-no-7)

Footnote 5 – BOTANICAL SOCIETY OF BRITAIN AND IRELAND (BSBI). Definitions: wild, native or alien? [online] Available on:

[Definitions: wild, native or alien? – Botanical Society of Britain & Ireland \(bsbi.org\)](https://bsbi.org/definitions-wild-native-or-alien)

Footnote 6 – BSBI and Biological Records Centre (BRC) (2022) Online Atlas of the British and Irish Flora. [online] Available on:

[Acknowledgements | Online Atlas of the British and Irish Flora \(brc.ac.uk\)](https://brc.ac.uk/acknowledgements)

Footnote 7 – GB NON-NATIVE SPECIES SECRETARIAT (GBNNSS) (2022) Available on:

[Home » NNSS \(nonnativespecies.org\)](https://nonnativespecies.org/home)

Footnote 8 – See gov.uk standing advice on ancient and veteran trees. Available from:

[Keepers of time: ancient and native woodland and trees policy in England \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/standards/policies/2019/07/keepers-of-time-ancient-and-native-woodland-and-trees-policy-in-england)

and

[Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/standards/policies/2019/07/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions)



