

Middlesex Stadium, Ruislip

Biodiversity Net Gain (BNG) Report

1601/Version 1.0

Client: Golf Entertainments Ltd.

Date: October 2024

DOCUMENT CONTROL

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Golf Entertainments Ltd.

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Version	Details	Date
1.0	Biodiversity Net Gain (BNG) issued to Client for review	10 th October 2024

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NON-TECHNICAL SUMMARY

Purpose of the Report	To provide the results of a Biodiversity Net Gain (BNG) conducted at Middlesex Stadium, to inform the masterplanning of the development and the requirement for further habitat compensation and/or enhancement measures.
Surveys Undertaken	An extended UKHab survey and BNG condition assessment was conducted of all areas within the red line planning boundary at the Site to provide a habitat baseline on September 24 th 2024.
Summary of Results	The development will result in a 2.07 unit Habitat BNG (16.81% BNG) and a 0.12 unit Hedgerow BNG (118.34%).
Conclusions	Provided that the recommendations for creation and management of habitats can be adhered to, it is predicted that the proposed development will achieve a net gain of 16.81% (2.07 Units) with a 118.34% (0.12 Units) hedgerow net gain.
Compensation	No off-site compensation is required. Other Neutral Grassland will be created and managed to Moderate Condition. Mixed Scrub will be created and managed to Moderate Condition.
Enhancement	A length of hedgerows will be enhanced to species rich and managed to Moderate Condition. It is recommended that further hedgerow enhancement is undertaken to reach the desired 10% net gain and to ensure the trading rules are met. It is recommended that a CEMP be produced to set out avoidance and mitigation measures during construction, particularly in relation to retained and enhanced habitats, and root protection zones. A LEMP and/or HMMP will need to also be required to ensure that the required habitats and habitat conditions are created, maintained and monitored appropriately to ensure that the BNG conditions stated within this assessment are achieved.
Data Valid Until	July 2025

Local Planning Authority BNG Questions & Answers	
Do you believe that, if the development is granted planning permission, the BNG Condition (as set out in pg 13 of Schedule 7A of the T&CPA 1990) would apply?	Yes
The date of the pre-development biodiversity value of onsite habitat(s) have been calculated and the reason that it is a date earlier than the planning application submission date	24 th September 2024. This is the date of the UKHab and BNG condition assessment survey which must occur in advance of the planning submission to inform the development layout.
The pre-development biodiversity value of onsite habitats on this date	12.3 Habitat Units and 0.1 Hedgerow Unit
Has there been any loss (or degradation) of any onsite habitat(s), resulting from activities carried out before the date specified in 1. Either: <ul style="list-style-type: none"> On or after 30 January 2020 which were not in accordance with a planning permission; or On or after 25 August 2023 which were in accordance with a planning permission 	No
If yes, please provide details including: the date immediately before this activity was carried out; the onsite biodiversity on this date; and any supporting evidence (or reference to relevant document containing these details).	N/A
Publication date of the biodiversity metric tool used to calculate the biodiversity value	Statutory Biodiversity Metric Feb 2024
Does the application site have irreplaceable habitats	No
If yes, please provide a description of these habitats or reference to relevant documents	N/A
Confirm that application includes the following: <ul style="list-style-type: none"> i) Completed Biodiversity Metric Tool ii) Baseline and Post-Development Habitat Plans iii) If applicable; plans showing irreplaceable habitats on site 	Yes, Statutory Biodiversity Metric Tool submitted separately and results summarised in this report with the plans included (Figures 2 and 3).

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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)	Y	Y	Y	Y	Y							
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													
Notes													
Footnote 1 – Professional judgement should be used alongside the UKHab description.													
Footnote 2 – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.													
Footnote 3 - Species indicative of suboptimal condition for this habitat type include: creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , creeping buttercup <i>Ranunculus repens</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i> . 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).													

..... 42

APPENDIX G HABITAT RETENTION MAP

1 INTRODUCTION

1.1 BACKGROUND

Golf Entertainments Ltd. commissioned Johns Associates Ltd in September 2024 to undertake a Statutory Biodiversity Net Gain (BNG) assessment of the proposed site at Middlesex Stadium, Ruislip, in support of a planning application for the site. The site is located at post code HA4 7SB (central Ordnance Survey (OS) grid reference TQ 07960 88568) and is hereafter referred to as the 'Site'. Figure 1 provides the Site location plan. The Site currently consists of modified grassland in the form of amenity playing fields, scrub, woodland and several mature trees.

1.2 SUMMARY OF PROPOSALS

The proposals include the improvement and construction of a number of sports pitches, including three mini-soccer pitches, a youth pitch and a warmup area. The margins of the pitches will be planted with scrub species and a wildflower mix.

1.3 PURPOSE OF THIS REPORT

The purpose of this report is to provide the results of a Statutory BNG assessment. Delivery of a 10% BNG became mandatory for most developments on the 12th February 2024 under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). If the required BNG cannot be met on-site, an off-site compensation area or compensation payment to a habitat banking scheme may be required. This report will outline the results of the baseline UKHab survey and provide the results of the BNG habitat condition assessments, the post-development habitat condition assessments and the BNG calculations.

The post-development landscape and ecological plans produced by Weller Designs Ltd. have informed the post-development BNG calculations and the plans were designed with ecological advice and through consultation with the landscape team and Golf Entertainment Ltd. to avoid habitats of higher distinctiveness and to maximise the achievable BNG whilst strengthening green infrastructure in the local area.

1.4 PERSONNEL

The BNG Condition Assessments, BNG calculations and production of this report were conducted by Ellie Brine BSc (Hons), a Consultant Ecologist at Johns Associates Ltd who is proficient in botanical identification, achieving a FISC level 4, and has worked and studied within the environmental sector for since 2015.

The report has been reviewed by Matt Johns BSc (Hons) MSc CEnv MCIEEM, a Director at Johns Associates Ltd who has worked as an ecological consultant since 1995. Matt is a Chartered Environmentalist and a full member of the Chartered Institute of Ecology and Environmental Management.

1.5 STATUTORY BIODIVERSITY METRIC

The Statutory Biodiversity Metric uses habitat as a proxy for overall biodiversity within different habitat types. Habitats are assigned a value based on their intrinsic biodiversity value or 'distinctiveness', which is predefined for each habitat within the metric. This value is then multiplied based on the size, condition, and geographical location of the habitat in order to ascertain its absolute value in 'biodiversity units'. Separate calculations are used within the metric for area-based habitats, linear habitats (such as hedgerows) and watercourses (including ditches and streams). These units are non-transferable and must therefore be considered individually for each project or development. Hereafter they will be referred to as "habitat units", "hedgerow units" and "river units" respectively. Collectively, they will be referred to as "biodiversity units".

Natural England provides a Calculation Tool with all calculations built in to aid in the assessment process. This report should be read in conjunction with the Calculation Tool provided for the assessment of this Site.

Underlying this assessment process are a key set of principles which explain the intended use of the Metric. They are as follows:

- Principle 1 – The metric assessment should be completed by a competent person.
- Principle 2 – The use of this biodiversity metric does not override existing biodiversity protections, statutory obligations, policy requirements, ecological mitigation hierarchy or any other requirements. This includes consenting or licensing processes, for example woodlands.
- Principle 3 – This biodiversity metric should be used in accordance with established good practice guidance and professional codes.
- Principle 4 – This biodiversity metric is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice.
- Principle 5 – Biodiversity units are a proxy for biodiversity and should be treated as relative values.
- Principle 6 – This biodiversity metric is designed to inform decisions in conjunction with locally relevant evidence, expert input, or guidance.
- Principle 7 – Habitat interventions need to be realistic and deliverable within a relevant project timeframe.
- Principle 8 – Created and enhanced habitats should be, where practical and reasonable, local to any impact and deliver strategically important outcomes for nature conservation.
- Principle 9 – This biodiversity metric does not enforce a minimum habitat size ratio for compensation of losses. Proposals should aim to:
 - Maintain habitat extent - supporting more, bigger, better and more joined up ecological networks;
 - Ensure that proposed or retained habitat parcels are of sufficient size for ecological function.

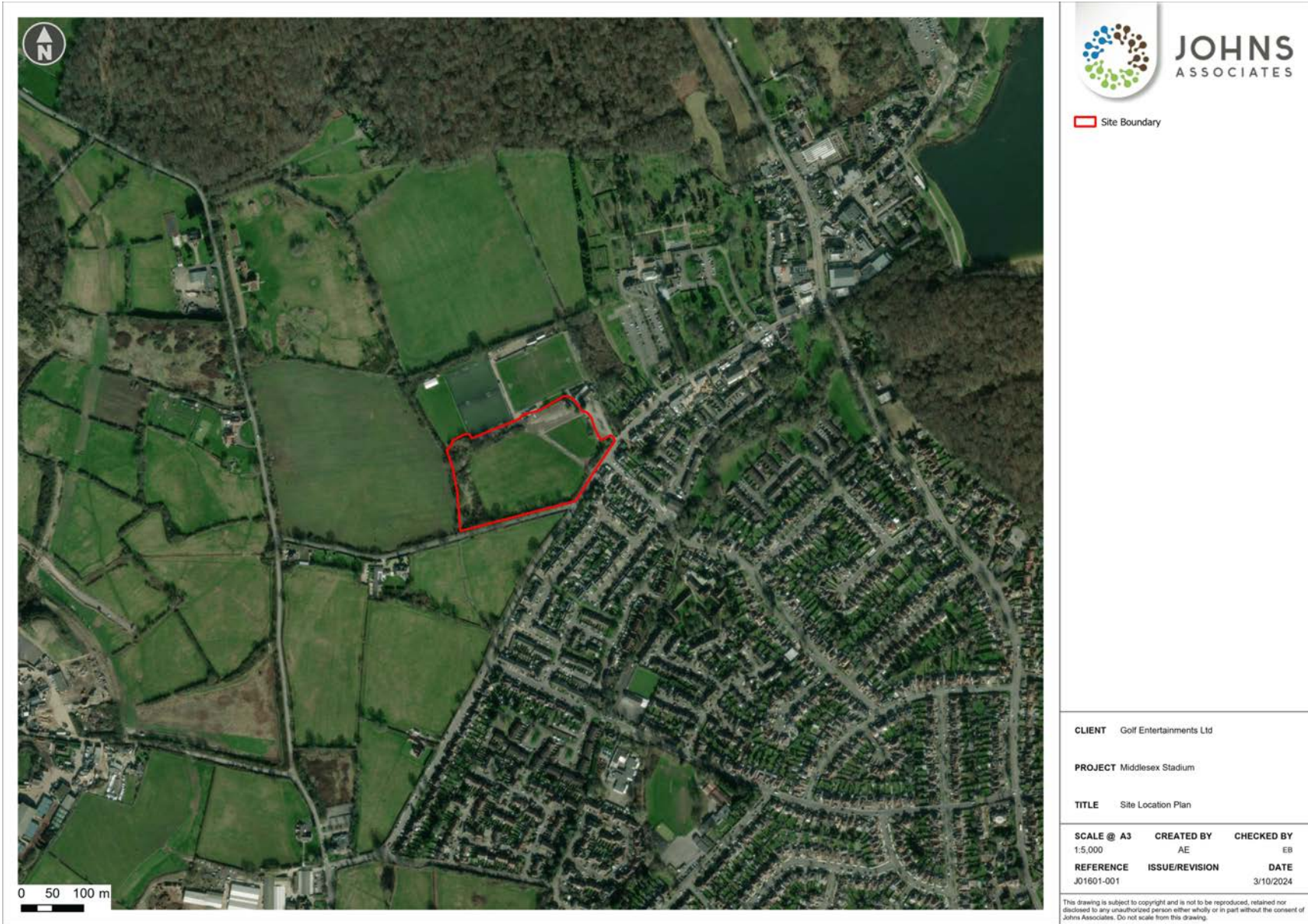
During the process of undertaking a biodiversity net gain assessment using the Statutory Biodiversity Metric, the following rules must be followed to ensure its proper use:

- Rule 1 – The trading rules of this biodiversity metric must be followed.
- Rule 2 – Biodiversity unit outputs, for each type of unit, must not be summed, traded, or converted between types. The requirement to deliver at least a 10% net gain applies to each type of unit.
- Rule 3 – To accurately apply the biodiversity metric formula, you must use the biodiversity metric calculation tool or small sites biodiversity metric tool (SSM) for small sites. The tools remove the need for a user to manually calculate the change in biodiversity value. The tool will summarise the results of the calculation and inform a user whether the biodiversity net gain objective has been met.
- Rule 4 – In exceptional ecological circumstances, deviation from this biodiversity metric methodology may be permitted by the relevant planning authority.

1.6 LEGISLATION AND POLICY

The legislation and national and local planning policies which are relevant to this assessment are provided in Appendix A to this report.

Figure 1: Site Location Red Line Boundary Plan and Context of Site



2 METHODOLOGY

2.1 HABITAT CLASSIFICATION AND CONDITION ASSESSMENT

2.1.1 UKHab Survey

A UKHab survey of the Site was undertaken on September the 24th 2024 by experienced ecologist Ellie Brine BSc (Hons) from Johns Associates Ltd. The weather was dry and sunny with good visibility. This survey was completed in accordance with the UK Habitat Classification (UKHab) v2.01 (2023) Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017) and BS 42020:2013 Biodiversity - Code of practice for planning and development (British Standards Institute, 2013).

The on-Site and off-Site (where accessible) habitats were classified following the UK Habitat Classification (UKHab) Version 2.01 (2023) guidelines, which provides a more detailed interpretation of baseline habitat survey data than previous habitat classifications systems, such as Phase 1 Habitat Assessments. The professional edition of UKHab “UK Habitat Classification –Professional Edition1” (UKHab-P) was used which includes Priority Habitat Types, all Annex 1 Habitats and the habitats listed in EUNIS.

The classification of primary habitats is hierarchical with five levels with a list of Secondary Codes, the latter is sub-divided into Essential codes and Additional codes. It is mandator that each recorded habitat parcel is allocated single primary Habitat Code and to record the presence of all Essential Secondary Code features associated with that habitat parcel. Additional Secondary Codes can also be associated with habitat parcels, where it is relevant to the whole parcel. Up to six Secondary Codes can be allocated to a single habitat.

UKHab v2.01 has a total of 268 Secondary Codes, sub-divided into 15 major groupings. Secondary codes are added to habitat parcels to:

- Confirm the identity of habitat mosaic and complexes.
- Add information about habitat origin and modifications.
- Add information on environmental context, management and land use in a consistent manner.

Essential Secondary Codes are identified as 2-digit numbers (10 – 90). Additional Secondary Codes (100 – 853) are 3-digit numbers and cover features including land management, land use (incorporating green infrastructure), environmental qualifiers, species features and hydrological regime descriptors. The UK Habitat Classification v2.01 Secondary Code Groupings are provided in Table 1.

Table 1: The UK Habitat Classification v2.0 Secondary Code Groupings

UKHab v2.0 Secondary Code Grouping	Description	UKHab v2.0 Codes
Secondary Essentials – Grasslands and Heathland	Habitat mosaic types and complexes that occur in the grassland, heathlands, hedgerows and scrub habitat	10 – 19
Secondary Essentials – Woodlands and Trees	Habitat complexes, origins and mosaic types that principally occur in woods associated with trees	25 – 34
Secondary Essentials – Freshwater	Habitat complexes and origins that principally occur in freshwater habitats	40 – 51
Secondary Essentials – Wetlands	Habitat complexes and environmental qualifiers that principally occur in wetlands	55 – 57
Secondary Essentials – All habitats	Habitat descriptors that can occur on any habitat	60 – 63
Secondary Essentials – Coast	Habitat complexes that principally occur on the coast	70 – 77

Secondary Essentials – Built environment	Habitat complexes, mosaics, land uses and green infrastructure principally associated with the built environment	80 – 90
Additional Secondary Codes – Grasslands and Heathlands	Habitat management, land use, environmental qualifier and species features principally associated with grassland, heathlands, hedgerows and scrub habitat	100 – 131
Additional Secondary Codes – Woodlands and Trees	Habitat management, land use, environmental qualifiers and species features principally associated with woods and trees	200 – 217
Additional Secondary Codes – Freshwater	Habitat management, land use, environmental qualifiers and species features principally associated with freshwater habitats	300 – 323
Additional Secondary Codes – Wetlands	Hydrological regime, habitat management and species features principally associated with wetlands	400 – 425
Additional Secondary Codes – All habitats	Additional habitat descriptors that can occur on any habitat	500 – 532
Additional Secondary Codes – Farming	Habitat management and land uses principally associated with farmlands	600 – 618
Additional Secondary Codes – Coast	Land use and environmental qualifiers principally associated with coastal areas	700 – 703
Additional Secondary Codes – Built environment	Land use and green infrastructure descriptors principally associated with the built environment	800 – 853

Where appropriate, maps were supplemented with target notes which provided specific information on habitats present that were too limited in extent to map at the scale at which data is presented, or the presence of species and habitats of ecological interest.

An annotated habitat map together with descriptions of the recorded habitat types was produced, which was subsequently digitised using a geographical information system (ArcGIS). The survey also included identification of any non-native invasive plant species. Flora taxonomy follows the nomenclature detailed in New Flora of the British Isles (4th Edition) (Stace C., 2019). Flora, where appropriate, are given a descriptive score of abundance using the DAFOR scale, as follows:

- D – Dominant
- A – Abundant
- F – Frequent
- O – Occasional
- R – Rare
- L – Locally (to be used as a prefix for any of the above)
- V – Very (to be used as a prefix for any of the above)

2.1.2 ArcGIS Symbology

At the time of production, a complete symbology for all habitats in the UK Habitat Classification Professional Edition (UKHab-P) was not available. The UK Habitat Classification Basic Edition (UKHab-B) symbology has therefore been

used, and where necessary to add in habitats not included in UKHab-B we have designed our own hatching system within the Level 2 colours for those habitats – following the guidance provided in the UK Habitat Classification Basic Edition: Suggested Symbolology for Maps document (UKHab, 2020).

2.1.3 Minimum Mapping Units

UKHab guidance indicated that UKHab has 3 Minimal Mapping Units (MMU's):

- 25 m² and 5 m length for urban and small-scale development projects, fine scale mapping of designated sites
- 400 m² and 20 m length for landscape scale surveys
- 2500 m² for larger unenclosed upland habitats.

Large scale, simple habitats or feasibility surveys should use a larger MMU. For this project, given the size of the site and the scale of the map the 25 m² and 5 m length MMU has been applied. This will allow all habitats to be clearly visible on the map whilst enabling enough fine detail to remain to clearly show all habitats present.

2.1.4 Strategic Significance

As part of the BNG assessment, habitats are afforded different levels of strategic significance, which describes the local significance of the habitat based on its location and the habitat type. Habitats were assigned a strategic significance value using the on-site habitat values and proximity to designated sites and priority habitat as shown in DEFRA's MAGIC application. The strategic significance is assigned as being high, moderate or low. High strategic value is assigned to biodiversity opportunity areas, core statutory sites, core non-statutory sites and network opportunity areas.

2.1.5 Distinctiveness

For the purpose of the metric assessment, distinctiveness refers to the relative scarcity of the habitat and its importance for nature conservation. The actual values assigned to each habitat type used in the metric are given in the Technical Supplement. These are automatically applied by the calculator tool based on the habitat type.

2.2 LIMITATIONS, CONSTRAINTS AND ASSUMPTIONS

The findings of this report are valid at the time of survey (23rd of September 2024). Should there be delays to the project timetable and/or implementation of the proposed development, updated desk study and/or site survey work may be required. In this instance, advice should be sought to ensure the data, recommendations and conclusions set out in this report remain valid.

It has been assumed that the development proposals are as described in this document and that all proposed mitigation and enhancement measures will be implemented in full.

The habitat survey was undertaken in mid-September, which is outside of the optimum field survey season to identify most flora (from May to August/early September), wherein the most accurate picture of the vegetation communities present can be gained. However, due to the nature of the habitats on site (low-moderate distinctiveness and amenity grassland) it was possible to gain an accurate assessment and therefore an updated survey to verify the results in seasons will not be required.

No other limitations or constraints with regard to the field survey or desk study were encountered and therefore the assessment is considered valid.

3 BIODIVERSITY NET GAIN

3.1 STRATEGIC SIGNIFICANCE

The following level of strategic significance is applied consistently to both lost and enhanced/created habitats

Woodland, trees and hedgerows

The site is within 250m of priority habitat deciduous woodland (Appendix B) and 500m of multiple sites designated for the presence of woodland, including Ruislip Woods NNR and SSSI (Appendix C). For this reason, woodland, hedgerows and trees on site are categorized as having 'high' strategic significance.

Grassland and scrub

The grassland and scrub present on site provides transitional habitat between adjacent priority and designated woodland habitat and is therefore categorized as having a 'medium' strategic significance.

3.2 BASELINE

The Existing UKHab Plan (Figure 2) and the baseline BNG habitat condition sheets (Appendix D) should be referred to throughout this section. No Schedule 9 non-native invasive species were encountered during the survey.

3.2.1 Urban – developed land; sealed surface

U1

Area U1 comprised 0.027ha of the main tarmacked carpark to the east of the site.

Plate 1: Area U1



3.2.2 Urban – artificial unvegetated – unsealed surface

U2

Area U2 comprised the 0.554ha of the main path throughout the site and a carpark to the north. The surface was composed of gravel.

Plate 2: Area U2



3.2.3 Grassland - Modified Grassland g4

G1

Area G1 comprised the main area of sports pitches. It had a low species diversity throughout (table 2) and was regularly mown to a height of approximately 12cm.

Table 2: Overall species list for Area G1

Species	Common name
<i>Achillea millefolium</i>	Yarrow
<i>Jacobaea vulgaris</i>	Common ragwort
<i>Cirsium vulgare</i>	Spear thistle
<i>Hypochaeris radicata</i>	Cat's-ear
<i>Ranunculus repens</i>	Creeping buttercup
<i>Renunculus acris</i>	Meadow buttercup
<i>Lolium perenne</i>	Perennial rye-grass
<i>Dactylis glomerata</i>	Cock's-foot

Table 3: Species within 1m² in Area G1

Species	Common name	DAFOR
<i>Lolium perenne</i>	Perennial rye-grass	D
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Ranunculus repens</i>	Creeping buttercup	R

Plate 3: Area G1 1m²



Plate 4: Area G1



G2

Area G2 comprised 0.378ha of poor condition grassland, used as a sports pitch. Similarly to area G2, it had a low species diversity throughout and was regularly mown to a height of approximately 12cm.

Table 4: Overall species list for area G2

Species	Common name
<i>Agrostis stolonifera</i>	Creeping bent
<i>Lolium perenne</i>	Perennial rye-grass
<i>Jacobaea vulgaris</i>	Common ragwort
<i>Dactylis glomerata</i>	Cock’s-foot

Table 5: Species within 1m² in Area G2

Species	Common name	DAFOR
<i>Lolium perenne</i>	Perennial rye-grass	D
<i>Dactylis glomerata</i>	Cock’s-foot	F
<i>Ranunculus repens</i>	Creeping buttercup	R

Plate 5: Area G2



Plate 6: Area G2 1m²



3.2.4 Heathland and Scrub – Mixed Scrub h3h

S1

Area S1 comprised 0.056ha of mixed scrub in poor condition, with scattered trees and limited woody species diversity. The parcel showed limited signs of regeneration with a lack of clearings and rides present.

Table 6: Overall species list for area S1

Species	Common name
<i>Salix caprea</i>	Goat willow
<i>Carpinus betulus</i>	Hornbeam
<i>Rubus fruticosus</i> agg.	Bramble
<i>Cirsium vulgare</i>	Spear thistle
<i>Urtica dioica</i>	Common nettle
<i>Ulmus procera</i>	English elm

Plate 7: Area S1



Plate 8: Area S1 and Area G2



S2

Area S2 comprised 0.083ha of poor condition mixed scrub, which was dominated by blackthorn *Prunus spinosa*. There were moderate signs of regeneration, including saplings produced by the adjacent veteran oak *Quercus robur* trees. Overall, the parcel lacked complexity due to its width and age range of woody species.

Table 7: Overall species list for area W1

Species	Common name
<i>Prunus spinosa</i>	Blackthorn
<i>Quercus robur</i>	Pedunculate oak
<i>Fraxinus excelsior</i>	Ash
<i>Hedera helix</i>	Ivy
<i>Sambucus nigra</i>	Elder
<i>Rubus fruticosus agg.</i>	Bramble

Plate 9: Area S2



Plate 11: Area S2



Plate 10: Area S2



3.2.5 Other Woodland; mixed w1h5

W1

Area W1 comprised 0.079ha of mixed woodland in poor condition. This parcel had only one age class of trees present resulting in limited verticle structure and lacked woodland regeneration. There was also a lack of deadwood and open space within the parcel.

Table 8: Overall species list for area W1

Species	Common name
<i>Salix cinerea</i>	Grey willow
<i>Rubus fruticosus</i> agg.	Bramble
<i>Prunus avium</i>	Wild cherry
<i>Acer campestre</i>	Field maple
<i>Hedera helix</i>	Common ivy

<i>Prunus spinosa</i>	Blackthorn
<i>Fraxinus excelsior</i>	Ash
<i>Carpinus betulus</i>	Hornbeam
<i>Cupressus x leylandii</i>	Leyland Cypress

Plate 12: Area W1 and G2



Plate 13: Area W1



3.2.6 Other Woodland; Broadleaved – w1g

W2

Area W2 comprised an area of 0.087ha of species-rich broadleaved woodland in moderate condition. There was moderate levels of deadwood throughout and one veteran tree within the parcel. Signs of ash dieback were evident throughout. There were two age classes of trees present and a moderate structural complexity to the parcel.

Table 9: Overall species list for area W2

Species	Common name
<i>Ulmus glabra</i>	Wych elm
<i>Quercus robur</i>	Pedunculate oak
<i>Hedera helix</i>	Common ivy
<i>Fraxinus excelsior</i>	Ash
<i>Crataegus monogyna</i>	Hawthorn
<i>Acer pseudoplatanus</i>	Sycamore
<i>Taxus baccata</i>	Yew
<i>Rosa canina</i>	Dog-rose
<i>Acer campestre</i>	Field maple
<i>Prunus spinosa</i>	Blackthorn
<i>Ilex aquifolium</i>	Holly

Plate 14: Area W2 and Area G1



Plate 15: Area W2



W3

Area W3 comprised the main area of broadleaved woodland on site covering 0.438ha. The achieved moderate condition but lacked open space with the ground layer becoming significantly overgrown with bramble *Rubus fruticosus* agg. There was 1 veteran tree located in the parcel and many of the mature ash had succumbed to ash dieback.

Table 10: Overall species list for area W3

Species	Common name
<i>Quercus robur</i>	Pedunculate oak
<i>Rubus fruticosus</i> agg.	Bramble
<i>Acer pseudoplatanus</i>	Sycamore
<i>Salix cinerea</i>	Grey willow
<i>Fraxinus excelsior</i>	Ash
<i>Sambucus nigra</i>	Elder

Plate 16: Area W3 and Area BS2



Plate 17: Area W3 and Area G1



3.2.7 Bramble scrub – h3d

There were two areas of bramble scrub on site (BS1, BS2) of which formed scallops into area W3. The bramble was unmanaged, impenetrable and approximately 2m in height.

Plate 18: Area BS1



Plate 19: Area BS2



3.2.8 Hedgerows

The hedgerow numbers, classification and descriptions are provided in Table 11.

Table 11: Hedgerows and Descriptions

Hedgerow number	Classification	Description
H1	Native hedgerow (h2a6)	H1 comprised 49m of poor condition native hedgerow. Woody species were sparse and there were large gaps throughout.

Plate 20: Hedgerow 1



Plate 21: Hedgerow 1



3.2.9 Trees

The tree numbers, classification and descriptions are provided in Table 12.

Table 12: Trees and Descriptions

Tree number	Description	DBH (diameter at breast height)
T1	T1 comprised a mature multi-stem goat willow <i>Salix caprea</i> in good condition	28cm
T2	T2 comprised a mature field maple <i>Acer campestre</i> in good condition	44cm
T3	T3 comprised a mature veteran pedunculate oak <i>Quercus robur</i> in good condition	110cm
T4	T4 comprised a mature veteran pedunculate oak <i>Quercus robur</i> in good condition	108cm
T5	T5 comprised a dead mature veteran pedunculate oak <i>Quercus robur</i> in moderate condition	125cm
T6	T6 comprised a mature veteran pedunculate oak <i>Quercus robur</i> in good condition	109cm
T7	T7 comprised a semi-mature pedunculate oak <i>Quercus robur</i> in good condition	48cm

Plate 22: T1



Plate 23: T2



Plate 24: T3



Plate 25: T4



Plate 26: T5



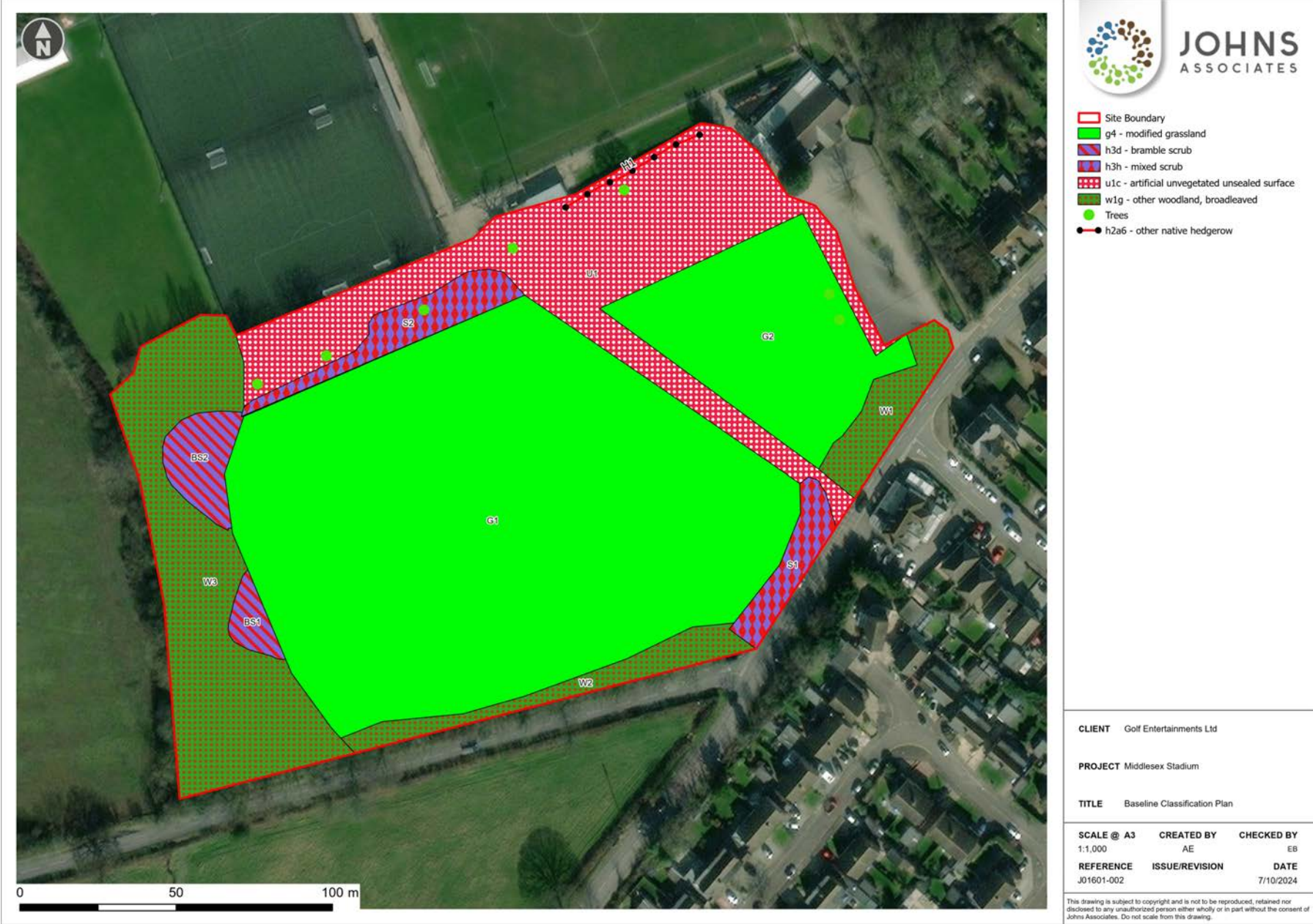
Plate 27: T6



Plate 28: T7



Figure 2: Baseline UKHab Habitat Plan



3.3 EXISTING BASELINE HABITATS

3.3.1 On-Site

Condition assessments for the baseline habitats are provided in Appendix D. Figure 2 provides the baseline UKHab Habitat Plan.

Overall, all habitats within the Site boundary are of low to moderate distinctiveness and the Site has scope to provide biodiversity net gain. Tables 13 and 14 below detail the specific area-based and linear habitat types respectively (Figure 2), with their relative conditions and baseline area unit values.

Table 13: Summary of Baseline BNG Results for Habitats

Broad Habitat Type	Habitat	Distinctiveness	Area (Ha)	Condition	Total Habitat Units
Urban	Sealed surface/ hardstanding	V. low	0.027	N/A	0
	Artificial unvegetated unsealed surface	V. low	0.554	N/A	0
Grassland	Modified grassland	Low	2.079	Poor	4.57
Heathland and shrub	Mixed scrub	Medium	0.139	Poor	0.61
	Bramble scrub	Medium	0.088	N/A	0.38
Individual trees	Urban trees (7 medium – large trees)	Medium	0.077	Moderate	0 – irreplicable habitat
			0.266	Good	1.56
Woodland and forest	Other woodland; broadleaved	Medium	0.525	Moderate	4.83
	Other woodland; mixed		0.079	Poor	0.37
		Totals	3.834		12.33

* Total shown excludes additional area of individual trees.

Table 14: Summary of Baseline BNG Results for Hedgerows

Hedgerow Type	Distinctiveness	Length (km)	Condition	Total Hedgerow Units
Native hedgerow	Low	0.49	Good	0.1
Totals		0.49		0.1

3.3.2 Habitat Distinctiveness

The habitat types across the Site varied in value. This has been quantified from the Statutory Metric trading summary for each habitat type (Table 15). Looking at the distinctiveness of each habitat it is possible to highlight areas for potential habitat creation and enhancement. Habitats of low – medium distinctiveness would be suitable for the creation of higher value habitat or improved in terms of their overall habitat condition through the design and implementation of new and appropriate management strategies.

Table 15: Existing Habitat Type Distinctiveness

Habitat Type	Distinctiveness	Trading Rule
Habitats		
Urban	V. Low	Compensation not required
Modified grassland	Low	Same distinctiveness or better habitat required
Mixed scrub	Medium	Same broad habitat or a higher distinctiveness habitat required
Bramble scrub	Medium	Same broad habitat or a higher distinctiveness habitat required
Urban trees	Medium	Same broad habitat or a higher distinctiveness habitat required
Other woodland; broadleaved	Medium	Same broad habitat or a higher distinctiveness habitat required
Other woodland; mixed	Medium	Same broad habitat or a higher distinctiveness habitat required
Hedgerows		
Native hedgerow	Low	Same distinctiveness or better habitat required

3.4 POST-DEVELOPMENT

3.4.1 On-Site Habitats

The post-development proposals for the Site comprise the creation of multiple natural (modified grassland) sports pitches. The margins of the fields are to include scrub and wildflower planting. Figure 3 provides the Post-Development UKHab Habitat Plan. The landscape plan comprises the loss of modified grassland and bramble scrub, retainment of woodland and mixed scrub habitat and newly created other neutral grassland and scrub habitats. Condition assessments for the proposed habitats are provided in Appendix E.

The following calculations are based on the Landscape Plan, Drawing Reference 820.04 produced by Weller Designs Ltd.

Area-based Habitats

Table 16 below details the specific habitat types, their proposed conditions and unit values.

Table 16: Summary of Post-Development Assessment for Area-used Habitats

Broad Habitat Type	Habitat	Distinctiveness	Area (Ha)	Condition	Units
Urban	Developed land; sealed surface	V. Low	0.027	N/A	0.00
	Artificial unvegetated, unsealed surface	V. Low	0.554	N/A	0.00
Grassland	Modified grassland	Low	1.493	Poor	3.83
	Other neutral grassland	Medium	0.241	Moderate	1.78
Heathland and shrub	Mixed scrub	Medium	0.333	Moderate	2.04
Individual trees	Rural trees (7 medium – large trees)	Medium	0.077	Moderate	0 – irreplicable habitat
			0.266	Good	1.56
Woodland and forest	Other woodland; broadleaved	Medium	0.525	Moderate	4.83
	Other woodland; mixed		0.079	Poor	0.37
		Totals	3.834		14.40

* Total shown excludes additional area of individual trees.

Hedgerow Habitats

Table 17 below details the specific hedgerow types, their proposed conditions and unit values.

Table 17: Summary of Post-Development Assessment for Linear Habitats

Linear Habitat Type	Distinctiveness	Length (km)	Condition	Units
Native hedgerow	Low	0.49	Good	0.21
Totals		0.49		0.21

Figure 3: On-Site Post-Development UKHab Habitat Plan



3.4.3 Headline Results

As demonstrated in Table 18 below, the biodiversity net gain results show an overall net gain in habitats, and a net gain in hedgerows. The trading rules have been satisfied for hedgerows and habitats.

Table 18: Summary of biodiversity net gain assessment before offsetting

Unit Type	Baseline Units	Post-development Units	Net Unit Change	% Change	Trading Rules Satisfied?
Habitat	12.33	14.4	2.07	16.81%	Yes
Hedgerow	0.1	0.21	0.12	118.34%	Yes

3.4.4 Application of the Mitigation Hierarchy

Because some area-based habitats and hedgerows are being lost in order to facilitate the proposed development, compensation and enhancement has been incorporated into the design in order to ensure compliance with Rule 1 and Principle 8 of the Metric User Guide. Table 19 demonstrates how the mitigation hierarchy has been applied to all habitats on Site in accordance with Principle 3 of the Metric User Guide. A map showing habitats to be retained (and protected during construction) can be found in Appendix G.

Biodiversity units are more easily achievable when habitats are retained and protected during construction and thereafter enhanced through improved management practices or additional planting (Principle 6 of the Metric User Guide. Therefore, as per the mitigation hierarchy, the improvement of the distinctiveness or condition (or both) of the retained habitats should always be a high priority.) In this case, the loss of modified grassland is sufficiently compensated by the creation of other neutral grassland and the loss of bramble scrub is compensated by the creation of mixed scrub. Enhancement of the native hedgerow on Site to moderate condition is suggested to achieve the required hedgerow net gain.

Table 19: Application of the Mitigation Hierarchy

Broad Habitat Type	Impacts Avoided?	Habitat Lost	Compensation to Meet Trading Rules	Details/ Recommendations	On-Site Units Gained
Grassland	No	Modified grassland	Same distinctiveness or better habitat required	Creation of other neutral grassland	1.03 units
Heathland and Scrub	No	Bramble scrub	Same broad habitat or higher distinctiveness required	Creation of mixed scrub	1.04 units

3.4.5 Compensation and Enhancement Measures

Table 20 below details the requirements of the compensation and enhancement measures which will be implemented to achieve the net gain in area and linear units stated in Table 19 above. These should be read in conjunction with a Landscape and Ecology Management Plan (LEMP) and/or Habitat Management and Monitoring Plan (HMMP) or similar which should be provided within the planning application or via planning condition.

Table 20: Summary of Proposed Compensation and Enhancement Measures

Habitat Type	Proposed Compensation or Enhancement Measure	Target Condition	Delivery Details
Grassland	Creation of other neutral grassland	Moderate	<p>In order to satisfy the criteria for moderate condition as per the Statutory Biodiversity Metric, the following must apply:</p> <ul style="list-style-type: none"> - The appearance and composition must fit the UKHab definition of other neutral grassland; - The sward height must be varied with at least 20% of the sward >7cm in height, and 20% <7cm; - No bracken or scrub encroachment should be allowed to establish; - No invasive non-native species should be present.
Heathland and Scrub	Creation of mixed scrub	Moderate	<p>In order to achieve moderate condition, <u>at least three</u> of the following must apply:</p> <ul style="list-style-type: none"> - The appearance and composition must fit the UKHab definition of mixed scrub; - No invasive non-native species should be present; - The scrub should have a well-developed edge with scattered scrub and tall grassland and/or forbs present between the scrub and adjacent habitat; - Clearings, glades or rides should be present within the scrub.
Hedgerows	Enhancement 0.048 km of species-rich native hedgerow	Moderate	<p>In order to achieve moderate condition, <u>at least four</u> of following must apply:</p> <ul style="list-style-type: none"> - The hedgerow should be >1.5m in height on average; - The hedgerows should be >1.5m in width on average; - Gap between ground and base of canopy should be <0.5m for at least 90% of the length; - Canopy gaps make up <10% of total length and no gaps are >5m wide; - Plant species indicative of nutrient enrichment should account for <20% of ground flora at the hedge base OR >1m of undisturbed ground with herbaceous perennial vegetation is present on at least one side of the hedgerow (this should be left largely unmanaged, especially over winter, to maximise the value for wildlife); - >90% of the hedgerow is free of undesirable species OR >90% of the hedgerow is free of damage from human activities <p>It is suggested that the hedgerow be planted up along gaps and a management regime put into place to reduce canopy caps and increase width.</p>

4 CONCLUSIONS

Provided that the recommendations for creation and management of habitats can be adhered to, it is predicted that the proposed development will achieve a net gain of 16.81% (2.07 Units) with a 118.34% (0.12 Units) hedgerow net gain.

The Statutory Biodiversity Metric BNG Trading Rule summary is Provided in Table 15 above. Figure 3 Provides the post development UKHab Plan and the Statutory Biodiversity Metric BNG spreadsheet has been submitted separately within this planning application.

The habitat and hedgerow Trading Rules have been met.

It is recommended that further hedgerow enhancement is undertaken to reach the desired 10% net gain and to ensure the trading rules are met.

It is recommended that a CEMP be produced to set out avoidance and mitigation measures during construction, particularly in relation to **retained and enhanced** habitats, and root protection zones. A LEMP and/or HMMP will need to also be required to ensure that the required habitats and habitat conditions and created, maintained and monitored appropriately to ensure that the BNG conditions stated within this assessment are achieved. Monitoring Site visits will be required to be conducted on Years 1, 2, 3, 5, 7, 10, 15, 20, 25 and 30 and follow up Site visits will also be required following any remediation measures being implemented to ensure success.

Should any significant changes to the proposals shown in Figure 3 occur, a reassessment of the potential impacts will be required.

5 REFERENCES

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- UK Government, (1981). *Wildlife and Countryside Act 1981 (as amended)*. Available at: <https://www.legislation.gov.uk/ukpga/1981/69>
- UK Habitat Classification, Habitat Definitions Version 2.01, UKHab July 2023

APPENDIX A – LEGISLATION AND PLANNING POLICY

LEGISLATION

Environment Act 2021 and Town and Country Planning Act 1990.

Under the Environment Act 2021, all planning permissions granted in England (with a few exemptions) except for small sites will have to deliver at least 10% biodiversity net gain from 12 February 2024. BNG will be required for small sites from 2 April 2024. BNG will be measured using Defra's biodiversity metric and all off-site and significant on-site habitats will need to be secured for at least 30 years. This sits alongside:

- A strengthened legal duty for public bodies to conserve and enhance biodiversity,
- New biodiversity reporting requirements for local authorities, and
- Mandatory spatial strategies for nature: Local Nature Recovery Strategies or 'LNRS'.

Schedule 7A Biodiversity Gain in England – Part 1 states:

1 (1) This Schedule makes provision for grants of planning permission in England to be subject to a condition to secure that the biodiversity gain objective is met.

(2) Paragraphs 2 to 12 have effect for the purposes of this Schedule.

Biodiversity gain objective

2 (1) The biodiversity gain objective is met in relation to development for which planning permission is granted if the biodiversity value attributable to the development exceeds the pre-development biodiversity value of the onsite habitat by at least the relevant percentage.

(2) The biodiversity value attributable to the development is the total of—

- (a) the post-development biodiversity value of the onsite habitat,
- (b) the biodiversity value, in relation to the development, of any registered offsite biodiversity gain allocated to the development, and
- (c) the biodiversity value of any biodiversity credits purchased for the development.

(3) The relevant percentage is 10%.

(4) The Secretary of State may by regulations amend this paragraph so as to change the relevant percentage.

Biodiversity value and the biodiversity metric

3 References to the biodiversity value of any habitat or habitat enhancement are to its value as calculated in accordance with the biodiversity metric.

4 (1) The biodiversity metric is a document for measuring, for the purposes of this Schedule, the biodiversity value or relative biodiversity value of habitat or habitat enhancement.

(2) The biodiversity metric is to be produced and published by the Secretary of State.

(3) The Secretary of State may from time to time revise and republish the biodiversity metric.

(4) Before publishing or republishing the biodiversity metric the Secretary of State must consult such persons as the Secretary of State considers appropriate.

(5) The Secretary of State may by regulations make transitional provision in relation to the revision and republication of the biodiversity metric.

(6) The Secretary of State must lay the biodiversity metric, and any revised biodiversity metric, before Parliament.

Pre-development biodiversity value

5 (1) In relation to any development for which planning permission is granted, the pre-development biodiversity value of the onsite habitat is the biodiversity value of the onsite habitat on the relevant date.

(2) The relevant date is—

(a) in a case in which planning permission is granted on application, the date of the application, and

(b) in any other case, the date on which the planning permission is granted.

(3) But the person submitting the biodiversity gain plan for approval and the planning authority may agree that the relevant date is to be a date earlier than that specified in sub-paragraph (2)(a) or (b) (but not a date which is before the day on which this Schedule comes into force in relation to the development).

(4) This paragraph is subject to paragraphs 6 and 7.

6 If—

(a) a person carries on activities on land on or after 30 January 2020 otherwise than in accordance with—

(i) planning permission, or

(ii) any other permission of a kind specified by the Secretary of State by regulations, and

(b) as a result of the activities the biodiversity value of the onsite habitat referred to in paragraph 5(1) is lower on the relevant date than it would otherwise have been, the pre-development biodiversity value of the onsite habitat is to be taken to be its biodiversity value immediately before the carrying on of the activities.

7 Where planning permission is granted in respect of land which is registered in the biodiversity gain site register under section 100 of the Environment Act 2021, the pre-development biodiversity value of the land is the total of—

(a) the biodiversity value of the onsite habitat on the relevant date, and

(b) to the extent that it is not included within that value, the biodiversity value of the habitat enhancement which is, on that date, recorded in the register as habitat enhancement to be achieved on the land.

Post-development biodiversity value

8 (1) In relation to any development for which planning permission is granted, the post-development biodiversity value of the onsite habitat is the projected value of the onsite habitat as at the time the development is completed.

(2) That value is to be calculated by taking the pre-development biodiversity value and—

(a) if at the time the development is completed the development will, taken as a whole, have increased the biodiversity value of the onsite habitat, adding the amount of that increase, or

(b) if at the time the development is completed the development will, taken as a whole, have decreased the biodiversity value of the onsite habitat, subtracting the amount of that decrease. This is subject to paragraph 9.

9 (1) This paragraph applies in relation to any development for which planning permission is granted where—

(a) the person submitting the biodiversity gain plan for approval proposes to carry out works in the course of the development that increase the biodiversity value of the onsite habitat, and

(b) the planning authority considers that the increase is significant in relation to the pre-development biodiversity value.

(2) The increase in biodiversity value referred to in sub-paragraph (1) is to be taken into account in calculating the post-development biodiversity value of the onsite habitat only if the planning authority is satisfied that the condition in sub-paragraph (3) is met.

(3) The condition is that any habitat enhancement resulting from the works referred to in sub-paragraph (1)(a) will, by virtue of—

(a) a condition subject to which the planning permission is granted,

(b) a planning obligation, or

(c) a conservation covenant, be maintained for at least 30 years after the development is completed.

(4) The Secretary of State may by regulations amend sub-paragraph (3) so as to substitute for the period for the time being specified there a different period of at least 30 years.

Registered offsite biodiversity gains

10(1) “Registered offsite biodiversity gain” means any habitat enhancement, where—

(a) the enhancement is required to be carried out under a conservation covenant or planning obligation, and

(b) the enhancement is recorded in the biodiversity gain site register (as to which, see section 100 of the Environment Act 2021).

(2) References to the allocation of registered offsite biodiversity gain are to its allocation in accordance with the terms of the conservation covenant or planning obligation referred to in sub-paragraph (1)(a).

(3) The biodiversity value of registered offsite biodiversity gain is measured, under the biodiversity metric, in relation to development to which it is allocated.

Biodiversity credits

11 “Biodiversity credits” means credits under section 101 of the Environment Act 2021.

General

12 (1) In relation to development for which planning permission is granted—

“onsite habitat” means habitat on the land to which the planning permission relates;

“planning authority” means the local planning authority, except that—

(a) in a case where the planning permission is granted by Mayoral development order under section 61DB, “planning authority” means such of the Mayor of London or the local planning authority as may be specified in the order;

(b) in a case where the planning permission is granted by the Secretary of State under section 62A, 76A or 77, “planning authority” means such of the Secretary of State or the local planning authority as the Secretary of State may determine;

(c) in a case where the planning permission is granted on an appeal under section 78, “planning authority” means such of the person determining the appeal or the local planning authority as that person may direct.

(2) "Habitat enhancement" means enhancement of the biodiversity of habitat.

(3) References to the grant of planning permission include the deemed grant of planning permission.

NATIONAL PLANNING POLICY

NPPF

There are numerous national and local planning policies associated with flora and fauna (also referred to as biodiversity) that need to be addressed as part of the planning process. The Government has issued its National Planning Policy Framework (NPPF) 2023, which requires impacts to biodiversity to be minimised. Paragraph 181 of the NPPF applies the same protection to Ramsar sites as that conferred by the Habitats Regulations to SACs and SPAs. The NPPF requires development to apply the following principles (Paragraphs 179-180):

- Minimise impacts on and provide net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressure;
- Identify and pursue opportunities for securing measurable net gains for biodiversity;
- Ensure that there will be no adverse impacts to SSSIs (such development would not normally be permitted);
- Ensure that there will be no loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees), unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- Where significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts) adequate mitigation, or as a last resort compensation, must be provided.
- The NPPF and associated Planning Practice Guidance also emphasise the requirement for ecological networks and wildlife corridors to be created throughout the wider landscape (paragraph 179).

Planning authorities should follow key principles to ensure that the potential impacts of planning decisions on biodiversity conservation are considered. Circular 06/05: Biodiversity and Geological Conservation provides guidance on the application of the law relating to planning and nature conservation and complements the NPPF.

The Natural Environment Paper

"The Natural Choice: Securing the Value of Nature" outlines the Government's approach and vision for nature in the UK including protecting and improving our natural environment, growing a green economy and reconnecting people and nature.

Biodiversity 2020

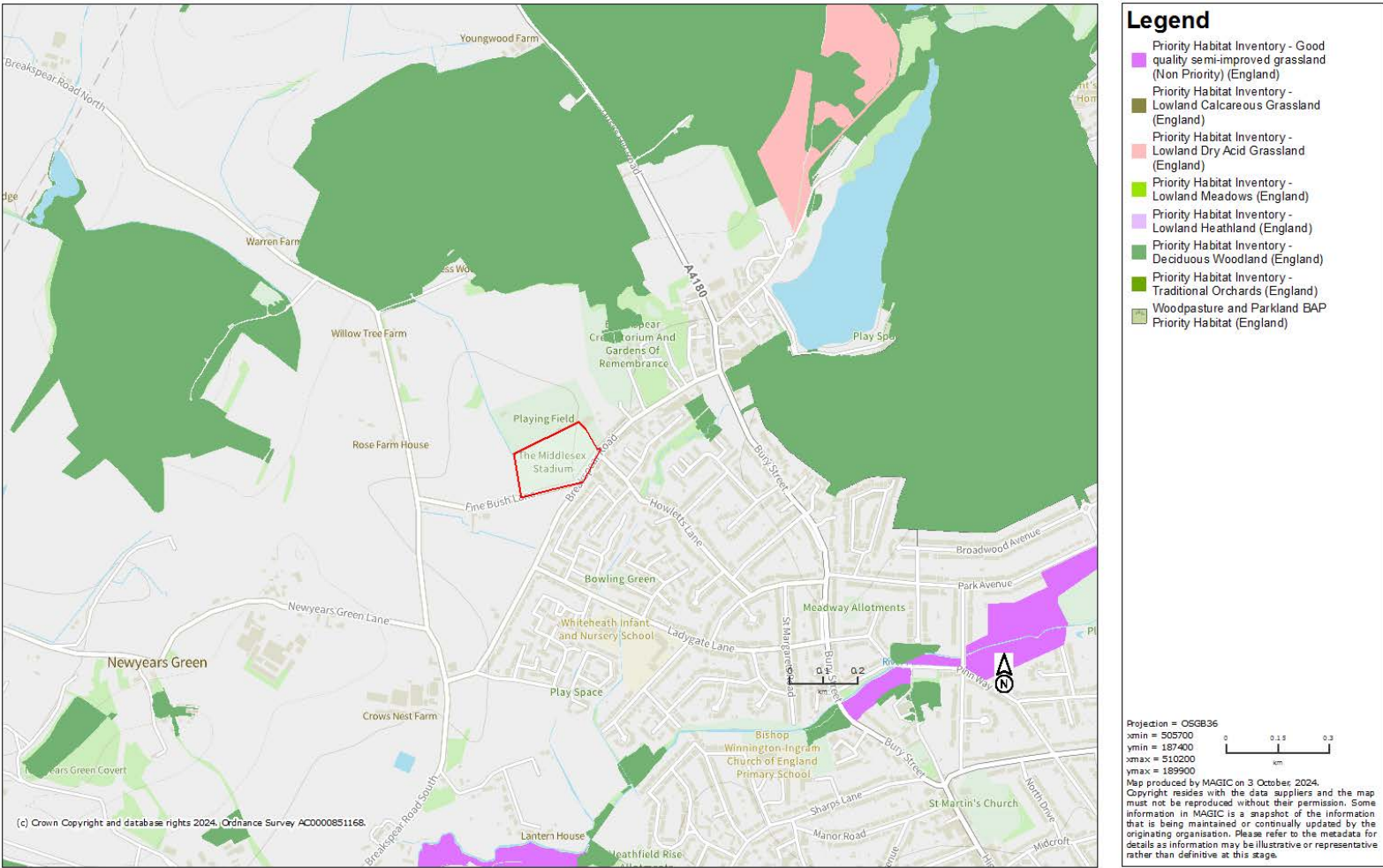
A strategy for England's wildlife and ecosystem services, are the country level strategies for England and builds on the natural Environment White Paper. It sets out the strategic direction for biodiversity policy for the next decade on land (including rivers and lakes) and at sea. The priorities for action include a more integrated large-scale approach to conservation, putting people at the heart of biodiversity policy, reducing environmental pressure and improving knowledge.

APPENDIX B PRIORITY HABITAT IN PROXIMITY TO THE SITE

(MAGIC, 2024)

MAGiC

Priority habitats in proximity to Middlesex Stadium

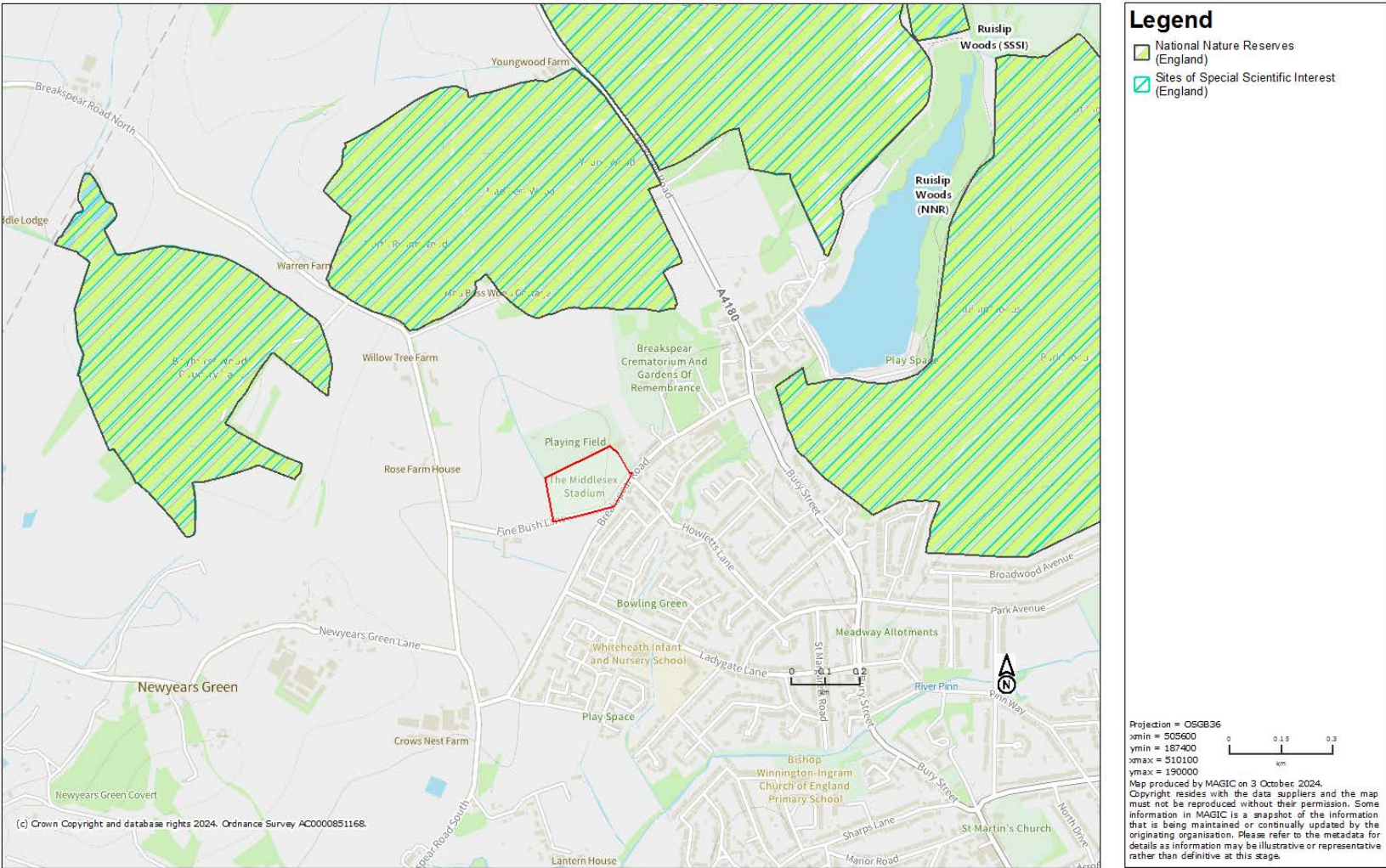


APPENDIX C DESIGNATED SITES IN PROXIMITY TO THE SITE

(MAGIC, 2024)



Designated sites in proximity to Middlesex Stadium



APPENDIX D BASELINE BNG CONDITION ASSESSMENTS

Grassland (Low distinctiveness)

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)													
UK Habitat Classification (UKHab) Habitat Type													
Grassland - Modified grassland													
Habitat Description													
Amenity grassland/Playing fields													
ukhab – UK Habitat Classification													
On-site or off-site, site name and location	On-site, Middlesex Stadium, Ruislip	Survey date and Surveyor name		23/09/2024 Ellie Brine									
		Survey reference (if relating to a wider survey)		1601 Middlesex Stadium UKHab									
Limitations (if applicable)		Habitat parcel reference											
		G1	G2										
		Grid reference											
Condition Assessment Criteria		Criterion passed (Yes or No)											Notes (such as justification)
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs (these may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition.	N	N										
	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 vertebrates and invertebrates to live and breed.	N	N										
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.	Y	Y										
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.	Y	Y										
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ² .	Y	Y										
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Y	Y										
G	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴).	Y	Y										
Essential criterion achieved (Yes or No)		N	N										
Number of criteria passed		5	5										
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x/√											
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)	Y	Y										
Suggested enhancement interventions to improve condition score													
Footnotes													

Hedgerow

Condition sheet: HEDGEROW Habitat Types				
Habitat Type				
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				
ukhab – UK Habitat Classification				
On-site or off-site, site name and location	On-Site Middlesex Stadium Rutslip		Survey date and Surveyor name	23/09/2024 Ellie Brine
Limitations (if applicable)			Survey reference (if relating to a wider survey)	1601 Middlesex Stadium
Grid reference			Habitat parcel reference	H1
Condition Assessment Details				
A series of ten attributes, representing key physical characteristics are used for this assessment. Each attribute is assigned to one of five functional groups (A – E) and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the 'favourable condition' criteria.				
This assessment is based on the Hedgerow Survey Handbook ¹ and Favourable Conservation Status document ² . For further clarification please refer to the Hedgerow Survey Handbook.				
Best practice would be to record the species, age, spacing and other key information about all trees present along a hedgerow within the 'Habitat Description' box, as well as other key features of the hedgerow.				
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. 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).	Y
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. 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).	N
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. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	N
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).	N
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.	Y

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.	N	
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 ³) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archacophytes count as natives. For information on archacophytes 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 .	N	
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 (for example, excessive hedgerow cutting).	N	
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 - 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.		
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.		
The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the Statutory Biodiversity Metric. The scores for each are set out in the tables below.					
Condition categories for hedgerows without trees					
Category		Category Requirements		Metric Score	
Good		No more than 2 failures in total; AND No more than 1 failure in any functional group.		3	
Moderate		No more than 4 failures in total; AND <u>Does not fail both attributes</u> , in more than one functional group (for example, fails attributes A1, A2, B1 and C2 = Moderate condition).		2	
Poor		Fails a total of more than 4 attributes; OR <u>Fails both attributes</u> , in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).		1	
		Score achieved:		1	
Condition categories for hedgerows with trees					
Category		Category Requirements		Metric score	
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 <u>Does not fail both attributes</u> , in more than one functional group (for example, fails attributes A1, A2, B1, C2 and E1 = Moderate condition).		2	
Poor		Fails a total of more than 5 attributes; OR <u>Fails both attributes</u> , in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).		1	
		Score achieved:			
Suggested enhancement interventions to improve condition score					

Scrub

Condition Sheet: SCRUB Habitat Type													
Habitat Types													
Heathland and shrub - Blackthorn scrub													
Heathland and shrub - Gorse scrub													
Heathland and shrub - Hawthorn scrub													
Heathland and shrub - Hazel scrub													
Heathland and shrub - Mixed scrub													
Heathland and shrub - Dunes with sea buckthorn (H2160)													
Heathland and shrub - Willow scrub													
Habitat Description													
Mixed scrub in an urban setting													
For Dunes with sea buckthorn see: Dunes with sea-buckthorn (Dunes with Hippophae rhamnoides) - Special Areas of Conservation (jncc.gov.uk)													
For other scrub types see: ukhab - UK Habitat Classification													
On-site or off-site, site name and location	On-site	Survey date and Surveyor name		23/09/2024									
		Survey reference (if relating to a wider survey)		1601 - Middlesex Stadium									
Limitations (if applicable)	Habitat parcel reference												
	S1	S2											
		Grid reference											
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). ¹ - At least 80% of scrub is native, - There are at least three native woody species ² , - No single species comprises more than 75% of the cover (except hazel <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> (only in its restricted native range), or box <i>Buxus sempervirens</i> , which can be up to 100% cover).	N	N										
	B	Seedlings, saplings, young shrubs and mature (or ancient or veteran ³) shrubs are all present.	N	N									
	C	There is an absence of invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) and species indicative of suboptimal condition ⁶ make up less than 5% of ground cover.	Y	Y									
	D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Y	N									
	E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	N	N									
Number of criteria passed		2	1										
Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved x/✓											
Passes 5 criteria	Good (3)												
Passes 3 or 4 criteria	Moderate (2)												
Passes 2 or fewer criteria	Poor (1)	Y	Y										
Suggested enhancement interventions to improve condition score													

Individual Trees

Condition Sheet: INDIVIDUAL TREES Habitat Type												
Habitat Types												
Individual trees – Urban trees												
Individual trees – Rural trees												
Complete a condition sheet for each tree or block of trees.												
Please see the separate Line of trees condition sheet for a line of rural trees. You should only use the Line of trees condition assessment and record that habitat type in rural locations.												
Habitat Description												
Individual veteran trees - predominantly veteran oaks												
Individual trees (description applied to the urban or rural environment):												
Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.												
Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):												
Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies should predominantly overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.												
On-site or off-site, site name and location	On-site, Middlesex Stadium, Ruislip		Survey date and Surveyor name		23/09/2024 - Ellie Brine							
			Survey reference (if relating to a wider survey)		1601 - Middlesex Stadium							
Limitations (if applicable)			Habitat parcel reference									
			T1	T2	T3	T4	T5	T6	T7			
Condition Assessment Criteria		Grid reference										
		Criterion passed (Yes or No)								Notes (such as justification)		
A	The tree is a native species (or at least 70% within the block are native species).	Y	Y	Y	Y	Y	Y	Y				
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Y	Y	Y	Y	N	Y	Y				
C	The tree is mature (or more than 50% within the block are mature) ¹ .	Y	Y	Y	Y	Y	Y	Y				
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Y	Y	Y	Y	N	Y	Y				
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Y	Y	Y	Y	Y	Y	Y				
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y	Y	Y	Y	N	N	Y				
Number of criteria passed		6	6	6	6	3	5	6				
Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score Achieved x/✓										
Passes 5 or 6 criteria	Good (3)	Y	Y	Y	Y		Y	Y				
Passes 3 or 4 criteria	Moderate (2)					Y						
Passes 2 or fewer criteria	Poor (1)											
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.												
Suggested enhancement interventions to improve condition score ²												

Woodland

Condition Sheet: WOODLAND Habitat Type														
UK Habitat Classification (UKHab) Habitat Types														
Woodland and forest - Lowland beech and yew woodland														
Woodland and forest - Lowland mixed deciduous woodland														
Woodland and forest - Native pine woodlands														
Woodland and forest - Other coniferous woodland														
Woodland and forest - Other Scot's pine woodland														
Woodland and forest - Other woodland; broadleaved														
Woodland and forest - Other woodland; mixed														
Woodland and forest - Upland birchwoods														
Woodland and forest - Upland mixed ashwoods														
Woodland and forest - Upland oakwood														
Woodland and forest - Wet woodland														
Habitat Description														
Other woodland; mixed and other woodland; broadleaved in an urban setting														
ukhab - UK Habitat Classification														
This condition sheet is based on the England Woodland Biodiversity Group (EWBG) Woodland Condition Survey Method, available here:														
Woodland Wildlife Toolkit (svlva.org.uk)														
IMPORTANT: This biodiversity metric woodland condition assessment must be used to assess woodland being input into the biodiversity metric. The outputs of this condition assessment are not equivalent to, nor are they comparable with the scores from the EWBG condition assessment, because the EWBG assessment has been adapted for the biodiversity metric, including the removal of EWBG Indicator 7 (Proportion of favourable land cover around woodland) and Indicator 14 (Size of woodland), and minor changes to other indicators.														
On-site or off-site, site name and location	On-site, Middlesex Stadium, Ruislip	Survey date and Surveyor name	23/09/2024 Ellie Brine	Habitat parcel reference										
				W1	W2	W3								
Limitations (if applicable)		Survey reference (if relating to a wider survey)	1601 - Middlesex Stadium	Grid reference										
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 ¹ present.	Two age-classes ¹ present.	One age-class ¹ present.	1	2	2								
B Wild, domestic and feral herbivore damage	No significant browsing damage evident in woodland ² .	Evidence of significant browsing pressure is present in less than 40% of whole woodland ² .	Evidence of significant browsing pressure is present in 40% or more of whole woodland ² .	3	3	3								
C Invasive plant species	No invasive species ³ present in woodland.	Rhododendron <i>Rhododendron ponticum</i> or cherry laurel <i>Prunus laurocerasus</i> not present, and other invasive species ³ <10% cover.	Rhododendron or cherry laurel present, or other invasive species ³ ≥10% cover.	3	3	3								
D Number of native tree species	Five or more native tree or shrub species ⁴ found across woodland parcel.	Three to four native tree or shrub species ⁴ found across woodland parcel.	Two or less native tree or shrub species ⁴ across woodland parcel.	3	3	2								
E Cover of native tree and shrub species	>80% of canopy trees and >80% of understorey shrubs are native ⁵ .	50 - 80% of canopy trees and 50 - 80% of understorey shrubs are native ⁵ .	<50% of canopy trees and <50% of understorey shrubs are native ⁵ .	2	3	3								
F Open space within woodland	10 - 20% of woodland has areas of temporary open space ⁶ . Unless woodland is <10ha, in which case 0 - 20% temporary open space is permitted ⁷ .	21 - 40% of woodland has areas of temporary open space ⁶ .	<10% or >40% of woodland has areas of temporary open space ⁶ . But if woodland <10ha has <10% temporary open space, please see Good category ⁷ .	1	3	1								
G Woodland regeneration	All three classes present in woodland ⁸ ; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.	One or two classes only present in woodland ⁸ .	No classes or coppice regrowth present in woodland ⁸ .	1	2	2								
H Tree health	Tree mortality 10% or less, no pests or diseases and no crown dieback ⁹ .	11% to 25% tree mortality and or crown dieback or low-risk pest or disease present ⁹ .	Greater than 25% tree mortality and or any high-risk pest or disease present ⁹ .	3	2	2								
I Vegetation and ground flora	Recognisable NVC plant community ¹⁰ at ground layer present, strongly characterised by ancient woodland flora specialists.	Recognisable woodland NVC plant community ¹⁰ at ground layer present.	No recognisable woodland NVC plant community ¹⁰ at ground layer present.	1	1	1								

J	Woodland vertical structure	Three or more storeys across all survey plots, or a complex woodland ¹¹ .	Two storeys across all survey plots ¹¹ .	One or less storey across all survey plots ¹¹ .	1	2	2										
K	Veteran trees	Two or more veteran trees ¹² per hectare.	One veteran tree ¹² per hectare.	No veteran trees ¹² present in woodland.	1	2	2										
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 ¹³ .	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 ¹³ .	1	2	1										
M	Woodland disturbance	No nutrient enrichment or damaged ground evident ¹⁴ .	Less than 1 hectare in total of nutrient enrichment across woodland area, and or less than 20% of woodland area has damaged ground ¹⁴ .	1 hectare or more of nutrient enrichment, and or 20% or more of woodland area has damaged ground ¹⁴ .	3	3	3										
Total Score (out of a possible 39)					24	31	27										
Condition Assessment Result		Condition Assessment Score			Result Achieved												
Total score >32 (33 to 39)		Good (3)															
Total score 26 to 32		Moderate (2)				Y	Y										
Total score <26 (13 to 25)		Poor (1)			Y												
Suggested enhancement interventions to improve condition score																	

APPENDIX E POST DEVELOPMENT CONDITION ASSESSMENTS

Grassland (med-high distinctiveness)

Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)														
UK Habitat Classification (UKHab) Habitat Types														
Grassland - Lowland calcareous grassland														
Grassland - Lowland dry acid grassland														
Grassland - Lowland meadows														
Grassland - Other lowland acid grassland														
Grassland - Other neutral grassland														
Grassland - Tall herb communities (H6430) [Not to be confused with the Tall forbs secondary code - see UKHab guidance for details.]														
Grassland - Upland acid grassland														
Grassland - Upland calcareous grassland														
Grassland - Upland hay meadows														
Sparsely vegetated land - Calaminarian grassland														
Habitat Description														
Other neutral grassland														
ukhab - UK Habitat Classification														
On-Site, Middlesex Stadium, Ruislip		Survey date and Surveyor name		N/A, Ellie Brine										
On-site or off-site, site name and location		Survey reference (if relating to a wider survey)		Middlesex Stadium post-development										
Limitations (if applicable)		Habitat parcel reference												Notes (such as justification)
		G3	G4	G5	G6	G7								
Condition Assessment Criteria		Grid reference												Notes (such as justification)
		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 (and relative 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.	Y	Y	Y	Y	Y								
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.	N	N	N	N	N								
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ² .	Y	Y	Y	Y	Y								
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%.	Y	Y	Y	Y	Y								
E	Combined cover of species indicative of suboptimal 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.	Y	Y	Y	Y	Y								
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 (species referenced in Footnote 3 and 5 cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	N	N	N	N	N								
Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		N	N	N	N	N								
Number of criteria passed		4	4	4	4	4								
Condition Assessment Result		Score Achieved x/✓												
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)	Y	Y	Y	Y	Y								
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														
Notes														
Footnote 1 – Professional judgement should be used alongside the UKHab description.														
Footnote 2 – For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.														
Footnote 3 – Species indicative of suboptimal condition for this habitat type include: creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , creeping buttercup <i>Ranunculus repens</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> and cow parsley <i>Anthriscus sylvestris</i> . 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)														

Scrub

Condition Sheet: SCRUB Habitat Type

Habitat Types

Heathland and shrub - Blackthorn scrub

Heathland and shrub - Gorse scrub

Heathland and shrub - Hawthorn scrub

Heathland and shrub - Hazel scrub

Heathland and shrub - Mixed scrub

Heathland and shrub - Dunes with sea buckthorn (H2160)

Heathland and shrub - Willow scrub

Habitat Description

Mixed scrub

For Dunes with sea buckthorn see: [Dunes with sea-buckthorn \(Dunes with Hippophae rhamnoides\) - Special Areas of Conservation \(ncc.gov.uk\)](#)

For other scrub types see: [ukhab – UK Habitat Classification](#)

On-site or off-site, site name and location

On-site, Middlesex Stadium, Ruislip

Survey date and Surveyor name

N/A, Ellie Brine

Survey reference (if relating to a wider survey)

Middlesex Stadium, post-development

Limitations (if applicable)

Habitat parcel reference

S3

S4

S5

S6

S7

Grid reference

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).¹

- At least 80% of scrub is native,

- There are at least three native woody species²,

- 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).

Y

Y

Y

Y

Y

B

Seedlings, saplings, young shrubs and mature (or ancient or veteran³) shrubs are all present.

Y

Y

Y

Y

Y

C

There is an absence of invasive non-native plant species⁴ (as listed on Schedule 9 of WCA⁵) and species indicative of suboptimal condition⁶ make up less than 5% of ground cover.

Y

Y

Y

Y

Y

D

The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.

Y

Y

Y

Y

Y

E

There are clearings, glades or rides present within the scrub, providing sheltered edges.

N

N

N

N

N

Number of criteria passed

4

4

4

4

4

Condition Assessment Result (out of 5 criteria)

Condition Assessment Score

Score Achieved x/✓

Passes 5 criteria

Good (3)

Passes 3 or 4 criteria

Moderate (2)

Y

Y

Y

Y

Y

Passes 2 or fewer criteria

Poor (1)

Suggested enhancement interventions to improve condition score

Hedgerow

Condition sheet: HEDGEROW Habitat Types				
Habitat Type				
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				
ukhab – UK Habitat Classification				
On-site or off-site, site name and location	On-Site, Middlesex Stadium, Post-dev		Survey date and Surveyor name	N/A, Ellie Brine
Limitations (if applicable)			Survey reference (if relating to a wider survey)	Middlesex Stadium post-development
Grid reference			Habitat parcel reference	H1
Condition Assessment Details				
A series of ten attributes, representing key physical characteristics are used for this assessment. Each attribute is assigned to one of five functional groups (A – E) and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the 'favourable condition' criteria.				
This assessment is based on the Hedgerow Survey Handbook ¹ and Favourable Conservation Status document ² . For further clarification please refer to the Hedgerow Survey Handbook.				
Best practice would be to record the species, age, spacing and other key information about all trees present along a hedgerow within the 'Habitat Description' box, as well as other key features of the hedgerow.				
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. 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).	N
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. 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).	Y
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. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	Y
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).	Y
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.	N

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.	Y	
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 ³) 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 .	Y	
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 (for example, excessive hedgerow cutting).	N	
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 - 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.		
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.		
The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the Statutory Biodiversity Metric. The scores for each are set out in the tables below.					
Condition categories for hedgerows without trees					
Category	Category Requirements		Metric Score		
Good	No more than 2 failures in total; AND No more than 1 failure in any functional group.		3		
Moderate	No more than 4 failures in total; AND <u>Does not fail both attributes</u> , in more than one functional group (for example, fails attributes A1, A2, B1 and C2 = Moderate condition).		2		
Poor	Fails a total of more than 4 attributes; OR <u>Fails both attributes</u> , in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).		1		
Score achieved:			2		
Condition categories for hedgerows with trees					
Category	Category Requirements		Metric score		
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 <u>Does not fail both attributes</u> , in more than one functional group (for example, fails attributes A1, A2, B1, C2 and E1 = Moderate condition).		2		
Poor	Fails a total of more than 5 attributes; OR <u>Fails both attributes</u> , in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).		1		
Score achieved:					
Suggested enhancement interventions to improve condition score					

(Weller Designs Limited, 2024)



APPENDIX G HABITAT RETENTION MAP

(Johns Associates 2024)

