



Biodiversity Net Gain Assessment

Berkshire Country Sports Club, Sonning Lane, Reading, RG4 6ST

HP Architecture

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Industry Guidelines and Standards

This report has been written with due consideration to:

- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management, Construction Industry Research and Information Association & Institute of Environmental Management and Assessment (2019). Biodiversity Net Gain – Good Practice Principles for Development.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by HP Architecture to undertake a Biodiversity Net Gain (BNG) Assessment at Berkshire County Sports Club, Sonning Lane, Reading, RG4 6ST (hereafter referred to as “the site”). The assessment was required to inform a planning application for the construction of three sheltered paddle courts, three tennis courts and additional parking (hereafter referred to as “the proposed development”).

- The baseline habitat for the site includes other neutral grassland, developed land; sealed surfaces, species rich native hedgerow, native hedgerow, and non-native and ornamental hedgerow. This provides 0.76 area-based habitat units and 0.61 hedgerow units.
- The proposed habitat includes other neutral grassland, individual trees, buildings, developed land: sealed surfaces, species rich native hedgerow, native hedgerow, and non-native and ornamental hedgerow. This provides 0.89 area-based habitat units and 0.70 hedgerow units.
- The current plan (Scenario A) results in a **+17.96%** net gain in area-based habitat, with **+14.26%** net gain in hedgerow habitat.
- The proposed development is therefore anticipated to surpass the minimum target for 10% biodiversity net gain and thus is compliant with legislation (Environment Act 2021).
- A Biodiversity Net Gain (BNG) Management Plan must be produced for this site. This should include recommendations for the implementation, management and monitoring of the site for at least 30 years.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by HP Architecture to undertake a Biodiversity Net Gain (BNG) Assessment at Berkshire Country Sports Club, Sonning Lane, Reading, RG4 6ST (hereafter referred to as “the site”). The assessment was required to inform a planning application for the construction of three sheltered paddle courts, three tennis courts and additional parking (hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in Appendix 1.

This report should be read in conjunction with the following documents:

- Defra Statutory Biodiversity Metric – v2.0 (Arbtech Consulting Ltd, 2024)
- Preliminary Ecological Appraisal (Arbtech Consulting Ltd, 2024) for the site.

1.2 Site Location, Geology and Landscape Context

The rectangular survey site is centred on National Grid Reference SU 75684 75020 and has an area of approximately 0.4ha. The site consists of hardstanding surrounded by a decorative privet hedgerow on the south and western boundaries and a beech hedgerow to the north and eastern boundaries. There are also 2 areas of grassland located within the site with the largest an area to the eastern aspect of site and a small parcel to the south-western aspect of site.

The site is surrounded by recreational fields to the north and west of the site, agricultural fields to the south of the site and Caversham lakes to the east. The wider landscape consists of broadleaved woodland, agricultural fields, residential properties and watercourses. The River Thames passes 500 m to the east of site. A site location plan is provided in Appendix 2.

1.3 BNG Informative

BNG is a specific, measurable outcome of project activities that deliver demonstrable and quantifiable benefits to biodiversity compared to the baseline situation. In order to achieve BNG, a project must be able to demonstrate that it has followed all 10 of the Principles of Biodiversity Net Gain (as outlined in the British Standard 8683:2021 Process for Designing and Implementing Biodiversity Net Gain).

The legalised Environment Act (2021) requires developments in England to demonstrate a measurable net gain in biodiversity and sets a target of a minimum of 10% BNG for all developments. It also stipulates that a management plan with a minimum 30-year term, should be adopted to ensure biodiversity net gain can be delivered. The Environment Act (2021) states biodiversity net gain is mandatory for sites over 0.5ha as of February 2024. The requirement for biodiversity net gain is also enshrined within the National Planning Policy Framework (NPPF, 2021). The DEFRA Statutory Biodiversity Metric is the widely accepted tool used to calculate BNG. It enables the calculation of habitat value pre- and post-development in order to determine the overall change in biodiversity value as a result of the proposed development. The Biodiversity Metric

has separate BNG assessments for areas of habitat, hedgerows and watercourses. The biodiversity value of a site should be maximised. However, it may not always be possible to achieve a 10% biodiversity net gain within a site and therefore the Statutory Biodiversity Metric can also account for offsite habitat creation, where land is available. Alternatively, developers can seek to provide an agreed financial contribution to an appropriate third party (such as the Local Authority, the UK Government or another landowner) to deliver the required biodiversity net gain elsewhere on their behalf.

2.0 Methodology

2.1 Baseline Biodiversity Value

The baseline BNG Calculation was informed by Preliminary Ecological Appraisal (Arbtech Consulting Ltd, 2024). A baseline habitat plan is provided in Appendix 3.

Habitat Classification

The Preliminary Ecological Appraisal classified the habitats on site according to The UK Habitat Classification Habitat Definitions Version 2.0 (The UK Habitat Classification Working Group, July 2023).

Habitat Area/Length

The area or length of each habitat was calculated using QGIS software. In calculating the area or length of each habitat, habitats which occur as two or more isolated parcels across the site were combined, where they were deemed to be of a similar composition and condition. Distinctions were made between habitats to be retained (i.e. left as found in baseline), enhanced (i.e. improved condition) or lost (i.e. destroyed by proposed development).

Areas of scattered trees were calculated using the Tree Helper tool within the Statutory Biodiversity Metric. Class sizes for urban trees are set out in Table 8-1 of the Statutory Biodiversity Metric User Guide (Natural England, 2023).

Habitat Condition

Habitat condition was assessed using the relevant condition assessment sheets found in the Statutory Biodiversity Metric User Guide (Natural England, 2023).

Strategic Significance

Strategic significance was assigned for each habitat based upon a review of the following:

- Ecological value
- Function within the landscape
- Any habitat allocations under The Natural Environment in Berkshire Biodiversity Strategy 2014 – 2020 (Berkshire LNP, 2014)
- Any habitat allocations under Berkshire's Biodiversity Opportunity Areas (Berkshire LNP)
- Any habitat allocations under Wokingham Borough Local Development Framework: Adopted Core Strategy Development Plan Document (Wokingham Borough Council, 2010)

- Any habitat allocations under Wokingham Borough Development Plan: Adopted Managing Development Delivery Local Plan (Wokingham Borough Council, 2014)

2.2 Post Development Biodiversity Value

The post development BNG Calculation was informed by Site Layout – 24.415.02.P5 (HP Architecture, 2024) which is included in Appendix 1. A post development habitat plan is provided in Appendix 4.

Habitat Classification

Proposed habitats were translated to their equivalents in the UK Habitat Classification using The UK Habitat Classification Habitat Definitions Version 2.0 (The UK Habitat Classification Working Group, July 2023) and the information provided within the Site Layout – 24.415.02.P5 (HP Architecture, 2024).

Habitat Area/Length

The area or length of each proposed habitat was calculated using QGIS software. In calculating the area or length of each habitat, habitats which occur as two or more isolated parcels across the site were combined, where they were deemed to be of similar composition and condition. Distinctions were made between habitats to be retained (i.e. left as found in baseline), enhanced (i.e. improved condition) or newly created.

Areas of scattered trees were calculated using the Tree Helper tool within the Statutory Biodiversity Metric. Class sizes for urban trees are set out in Table 8-1 of the Statutory Biodiversity Metric User Guide (Natural England, 2023).

Habitat Condition

Target habitat condition for each proposed habitat was determined assessed using the Temporal Multipliers Tool and the Enhancement Temporal Multipliers Tool included in the Statutory Biodiversity Metric spreadsheet as well as the relevant condition assessment sheets found in the Statutory Biodiversity Metric User Guide (Natural England, 2023). This is based on the assumption that a 30-year management plan will be adopted for the site.

Strategic Significance

Strategic significance was assigned for each proposed habitat based upon a review of the following:

- Likely ecological value
- Function within the landscape
- Any habitat allocations under The Natural Environment in Berkshire Biodiversity Strategy 2014 – 2020 (Berkshire LNP, 2014)
- Any habitat allocations under Berkshire's Biodiversity Opportunity Areas (Berkshire LNP)

- Any habitat allocations under Wokingham Borough Local Development Framework: Adopted Core Strategy Development Plan Document (Wokingham Borough Council, 2010)
- Any habitat allocations under Wokingham Borough Development Plan: Adopted Managing Development Delivery Local Plan (Wokingham Borough Council, 2014)

2.3 Limitations

No limitations were identified during the preparation of this report.

3.0 Results

3.1 Baseline Habitats

Table 1 details the baseline habitats present within the site along with their area/length, condition and strategic significance. A full condition assessment for each habitat (where relevant) is provided in Appendix 5a.

Table 1: Baseline Biodiversity Value

Habitat	Quantity	Description	Condition Assessment	Strategic Significance
On-Site Area Habitats [UKHab Codes]	Hectares [Units]			
Developed Land; Sealed Surfaces – [u1b]	0.24010 [Nil]	Existing paving, footpaths, small structures, and tennis courts.	N/A – Condition pre-determined.	Low – Area not in local strategy
Other Neutral Grassland – [g3c]	0.18937 [0.76]	Existing grasslands surrounding the tennis courts and along the pathway leading south. Kept to a low sward height through regular maintenance. No notable species present and low mix of vascular species.	Poor – Assessed using the ‘grassland medium, high & v. high’ habitat condition sheet.	
On-Site Linear Habitats [UKHab Codes]	Kilometres [Units]			
Species Rich Native Hedgerow – [h2a5]	0.03769 [0.35]	The eastern boundary of site consists of a species-rich hedgerow with blackthorn(D) and hawthorn (D) being the dominant species and other species present sessile oak (O), horse chestnut (O), ash (F), holly (O) and sycamore (F). The ground flora consisted of cocks foot (D), common nettle (D), knapweed (O), bramble (F) and night shade (O). (SRNH1)	Moderate – Assessed using the ‘hedgerow’ habitat condition sheet.	High – Formally identified in local strategy. Policy CC03 of the local plan
Native Hedgerow – [h2a]	0.06079 [0.14]	The north-eastern and eastern boundaries of the hard standing consist of a beech (D) hedgerow with occasional bramble (O). The ground flora consisted of ruderal species such as mallow (O), common nettle (D) and one specimen of small nettle (R) and lemon balm (R). (NH1 & 2)	Poor – Assessed using the ‘hedgerow’ habitat condition sheet.	
Non-native and Ornamental Hedgerow – [h2b]	0.12454 [0.12]	Surrounding the hardstanding which forms the main body of site there is an ornamental privet (D) hedgerow to the west, south and north-west boundaries. Ground flora was sparse with occasional ruderal flora consisting of ground ivy (D), ragwort (O), dandelion (O), common ivy (A) and creeping thistle (F). (OH1 – 4)	Poor – Condition pre-determined.	Low – Area not in local strategy

3.2 Post Development Habitats

Table 2 details the post development habitats present within the site along with their area/length, condition and strategic significance. An assessment of the anticipated condition for each habitat (where relevant) is provided in Appendix 5b, which is based on the assumption that a 30-year management plan will be implemented for the site. The proposed development will result in the loss of 0.09 habitat units (-15.39%) and a gain of 0.01 hedgerow units (+1.64%). This is less than the +10% net gain required.

Table 2: Post Development Biodiversity Value

Habitat	Quantity	Description	Condition Assessment	Strategic Significance
On-site Area Habitats	Hectares [Units]			
Developed Land; Sealed Surfaces – [u1b]	0.14389 [Nil]	Retained – hard standing including: covered padel tennis courts, pathways, paving, and outdoor padel tennis courts.	N/A – Condition pre-determined.	Low – Area not in local strategy
	0.14018 [Nil]	Created – hardstanding including: covered padel tennis courts, huts, pathways, paving, carparking and extension to outdoor padel tennis courts.		
Other Neutral Grassland – [g3c]	0.06621 [0.26]	Retained – as existing. Areas surrounding the courts, existing buildings and pathways to be retained as is.	Poor – Assessed using the ‘grassland medium, high & v. high’ habitat condition sheet.	
	0.02061 [0.08]	Created – extensions to existing areas to be managed under the current management regime for the surrounding grassland.		
	0.05858 [0.51]	Enhanced – grassland areas to the east and south-east of proposed padel tennis courts to be enhanced through native wildflower planting, adjustments to management regime, and limiting through access.	Good – Assessed using the ‘grassland medium, high & v. high’ habitat condition sheet.	
Individual Urban Trees	0.01221 [0.04]	Created – 3nr new planted native fruit trees.	Moderate – Assessed using the ‘Individual Trees’ habitat condition sheet.	High – Formally identified in local strategy. Policy CC03 of the local plan
On-Site Linear Habitats	Kilometres [Units]			
Species Rich Native Hedgerow – [h2a5]	0.03769 [0.35]	Retained – as existing (SRNH1).	Moderate – Assessed using the ‘hedgerow’ habitat condition sheet.	High – Formally identified in local strategy. Policy CC03 of the local plan

Native Hedgerow – [h2a]	0.03203 [0.07]	Retained – hedgerow to the north of the existing tennis courts (NH1) as existing.	Poor – Assessed using the ‘hedgerow’ habitat condition sheet.	
	0.00230 [0.01]	Created – extension of NH1 to infill gap with OH1.		
	0.06314 [0.24]	Created – new hedgerow (NH3&4) to be created to be created along the pathway leading south and around the outdoor tennis hut.	Moderate – Assessed using the ‘hedgerow’ habitat condition sheet.	
Non-native and Ornamental Hedgerow – [h2b]	0.02966 [0.03]	Retained – hedgerow to the north of proposed covered padel tennis courts (OH1).	Poor – <i>Condition pre-determined</i>	Low – Area not in local strategy

3.3 Change in Biodiversity Value of the Site

Full details are provided in the Defra Statutory Biodiversity Metric. The headline results are presented in Appendix 6.

Areas of Habitat

The baseline habitat value of the site is 0.76 units, comprising 0.76 units of other neutral grassland, and Nil units of developed land; sealed surfaces.

The post development habitat value of the site is 0.89 units, comprising the retention of buildings and hardstanding (no value), other neutral grassland (0.26 units); the creation of buildings and hardstanding (no value), other neutral grassland (0.08 units), individual urban trees (0.04 units); and the enhancement of other neutral grassland to good condition (0.51 units).

This results in a net change in biodiversity of +17.96% (i.e. a net gain).

Hedgerows

The baseline hedgerow value of the site is 0.61 units, comprising 0.35 units species rich native hedgerow, 0.14 units of native hedgerow, and 0.12 units of non-native and ornamental hedgerows.

The post development habitat value of the site is 0.70 units, comprising retention of species rich native hedgerow (0.35 units), native hedgerow (0.07 units), and non-native and ornamental hedgerows (0.03 units); and the creation of native hedgerow (0.25 units).

This results in a net change in biodiversity of 14.26% (i.e. a net gain).

4.0 Recommendations to Deliver BNG

4.1 Discussion

The current proposed plan results in a **+15.39%** net gain in habitat units and a **+14.26%** net gain in hedgerow units. This is more than the 10% target of biodiversity net gain. The proposed development is therefore anticipated to surpass the minimum target of 10% biodiversity net gain and thus is compliant with legislation (Environment Act 2021).

4.2 Post Development

A Biodiversity Net Gain (BNG) Management Plan must be produced for this site. This should include recommendations for the implementation, management and monitoring of the site for at least 30 years.

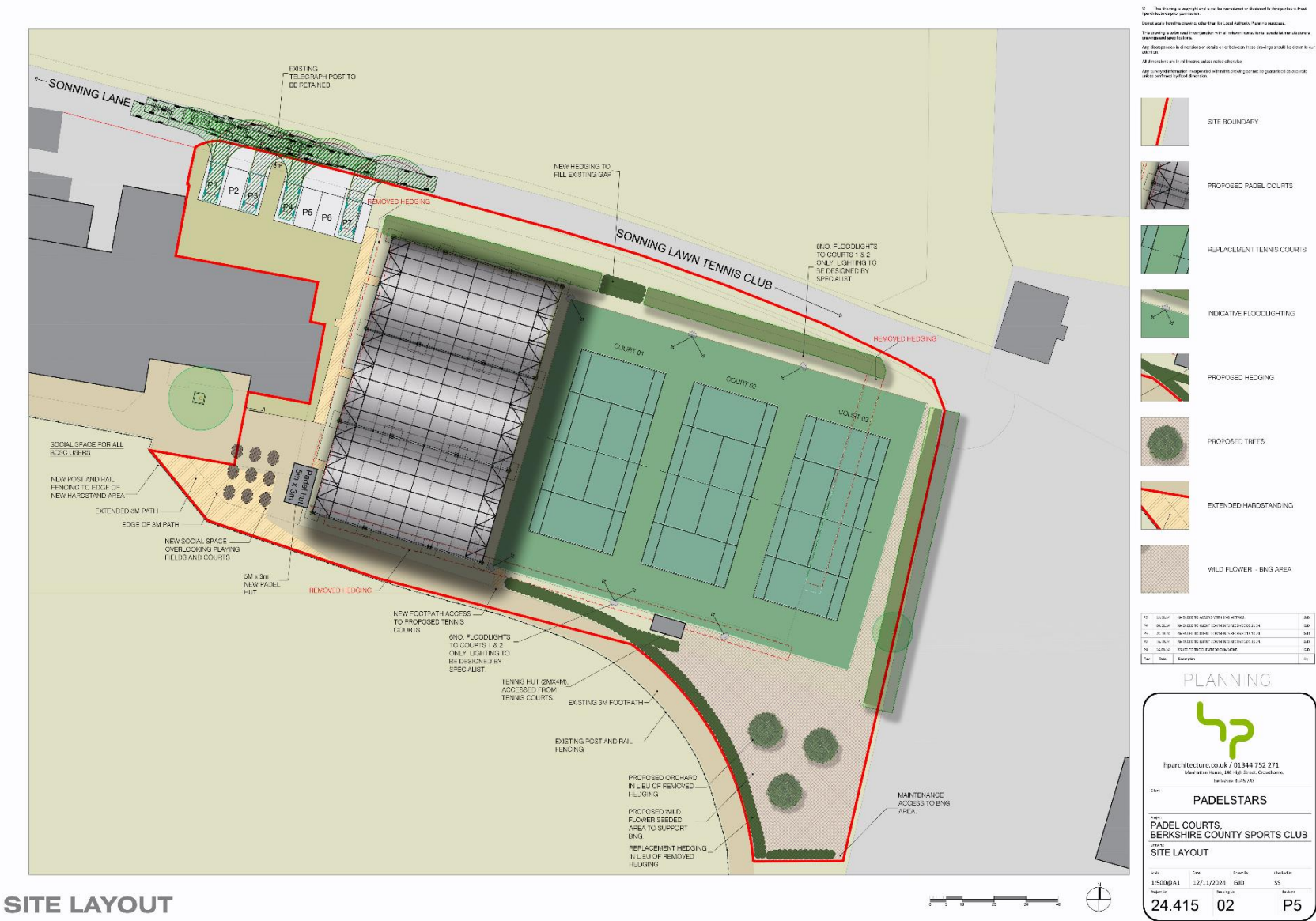
4.3 Design Statement

This report contains recommendations on measure for achieving BNG. These recommendations do not constitute a design for BNG. In submitting these recommendations, Arbtech Consulting has no Design Liability associated with these recommendations for BNG. The strategy sets out the criteria which the landscape team can use to design the creation and management of the site.

5.0 Bibliography

- Arbtech Consulting Ltd (2024). Defra Statutory Biodiversity Metric – v2.0 – 19/11/2024
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- Wokingham Borough Council (2010). Wokingham Borough Local Development Framework: Adopted Core Strategy Development Plan Document
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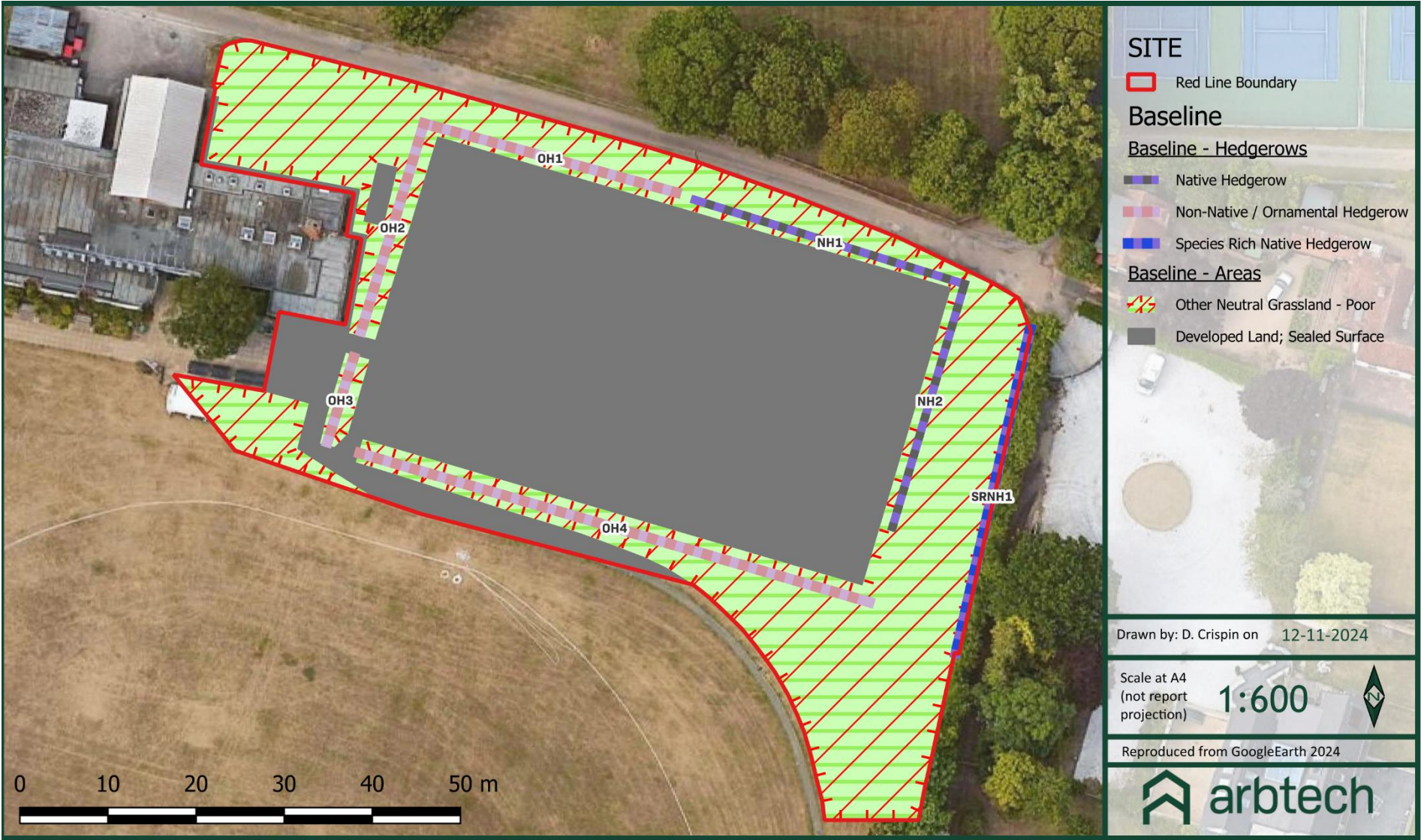
Appendix 1: Proposed Development Plan



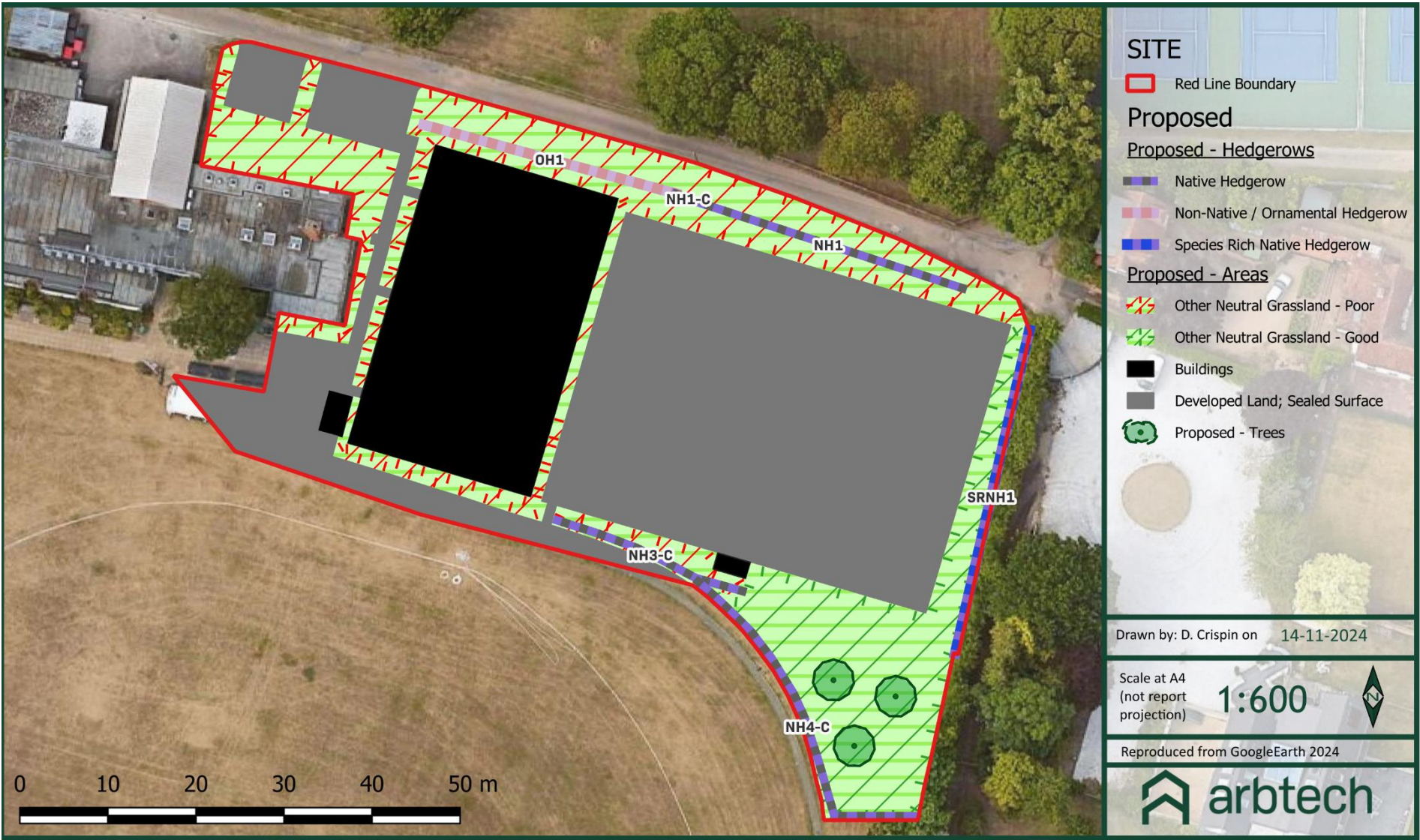
Appendix 2: Site Location Plan



Appendix 3: Baseline Habitat Plan



Appendix 4: Post Development Habitat Plan



Appendix 5a: Habitat Condition Assessment Sheets - Baseline

Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)			
UK Habitat Classification (UKHab) Habitat Types			
Grassland - Other neutral grassland			
On-site or off-site, site name and location	Berkshire County Sport Club	Survey date and Surveyor name	BM
Limitations (if applicable)		Survey reference (if relating to a wider survey)	PEA (Arbtech Consulting Ltd, 2024)
Habitat Description			
The survey site has 3 areas of other neutral grassland, with the largest area to the east and southeast of the site. These sections where frequently managed and mowed regularly with average sward height <5cm with some larger unmanaged strips in the area to the east. There is another small area of other neutral grassland just outside of the redline boundary to the south east of site, that has also been assessed for potential BNG enhancements. All areas were dominated with cocksfoot (D), timothy (D), and common bent (D). With frequent species consisting of creeping buttercup (F), spear thistle (F), red clover (F), white clover (F), ragwort, hawks beard, red campion (F), dandelion (O) and rare occurrences of lemon balm (R) and mallow (R).			
Condition Assessment Criteria		Criterion passed	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.	No	Area is heavily managed and contains various sub optimal species but more grass than ruderal herb and forbs.
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Yes	
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ² .	Yes	No bare ground present
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%.	Yes	No bracken or bramble present within grassland
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.	No	Area is heavily managed and is used for access so various trampled paths through habitat.
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.	No	
Essential criterion for Good condition achieved (for non-acid grassland)		No	

Number of criteria passed		3	
Condition Assessment Result	Condition Assessment Score	Score Achieved x/√	
Non-acid grassland types (Result out of 6 criteria)			
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.	Good (3)	No	
Passes 3 - 5 criteria, including essential criterion A.	Moderate (2)	No	
Passes 2 or fewer criteria; <u>OR</u> Passes 3 or 4 criteria excluding criterion A and F.	Poor (1)	Yes	

Condition sheet: HEDGEROW Habitat Types					
Habitat Type					
Native hedgerow					
Habitat Description					
The north eastern and eastern boundaries of the hard standing consist of a beech (D) hedgerow with occasional bramble (O). The ground flora consisted of ruderal species such as mallow (O), common nettle (D) and one specimen of small nettle (R) and lemon balm (R). NH1 and NH2					
On-site or off-site, site name and location	Onsite - Berkshire County Sports Club		Survey date and Surveyor name	Blair McNicol	
Limitations (if applicable)	None		Survey reference (if relating to a wider survey)	PEA (Arbtech Consulting Ltd, 2024)	
Grid reference	Eastern Boundary		Habitat parcel reference	N/A	
Hedgerow favourable condition attributes					
Attributes and functional groupings	Criteria - the minimum requirements for 'favourable condition'		Criteria description	Criterion passed (Yes or No)	Notes
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).	Yes	

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).	No	
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).	No	
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).	No	
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.	Yes	
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.	No	
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 .	Yes	
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).	No	Areas used as paths, and also cut back to halt growth

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 Does not fail both attributes 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 Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
Score achieved:		1

Condition sheet: HEDGEROW Habitat Types				
Habitat Type				
Species-Rich Native hedgerow with trees				
Habitat Description				
The eastern boundary of site consists of a species-rich hedgerow with blackthorn (D) and hawthorn (D) being the dominant species and other species present sessile oak (O), horse chestnut (O), ash (F), holly (O) and sycamore (F). The ground flora consisted of cocks foot (D), common nettle (D), knapweed (O), bramble (F) and night shade (O). SRNH1				
On-site or off-site, site name and location	Onsite - Berkshire County Sports Club		Survey date and Surveyor name	Blair McNicol
Limitations (if applicable)	None		Survey reference (if relating to a wider survey)	PEA (Arbtech Consulting Ltd, 2024)
Grid reference			Habitat parcel reference	N/A
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).	Yes	
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).	Yes	
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).	No	
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).	No	
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.	Yes	
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.	No	
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	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	Yes	

		of WCA ³) and recently introduced species.	contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website ⁷ .		
D2	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).	No	Areas used as paths, and also cut back to halt growth

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.	Yes	
E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.	Yes	

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 5 failures in total; AND Does not fail both attributes 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 5 attributes; OR Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
Score achieved:		2

Appendix 5b: Habitat Condition Assessment Sheets - Proposed

Condition sheet: HEDGEROW Habitat Types				
Habitat Type				
Native hedgerow				
Habitat Description				
Native hedgerows must contain over 80% of canopy cover from native or archaeophyte woody species. Archaeophyte species are those that have been recorded as naturalised in the wild before 1500CE. Although integral to many hedgerows, climbing species such as Honeysuckle and Bramble are not included in the definition of woody species. Native hedgerows have the base of the leafy canopy less than 2m in height from the ground, despite some woody species being capable of growing into trees. To achieve and maintain a hedgerow in good condition, the base of the leafy canopy must commence 0.5m or less from the ground. Hedgerows should be a minimum of 1.5m in width Gaps between trees and shrubs should not exceed 20m and any bank, wall, tree or herbaceous vegetation within 2m of the hedgerow centre is included within the hedgerow habitat. As such, any newly planted hedgerows must be located outside of a 2m buffer zone from any buildings or structures. To achieve a species-rich native hedgerow 5 or more (or 4 or more in Northern and Eastern England, Upland Wales and Scotland) native or archaeophyte woody species must be present within a 30m section. Species composition often contains a mix of shrub and tree species. Recommended species include Hawthorn, Blackthorn, Field Maple, Elm, Ash, Oak, Hazel. A 2m buffer area (starting from the centre of the hedgerow) of undisturbed vegetation must be in place to comply with the Hedgerow Regulations				
On-site or off-site, site name and location	Onsite - Berkshire County Sports Club		Survey date and Surveyor name	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	Prospective assessment	
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 Handbook¹ and Favourable Conservation Status document². 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	Criteria - the minimum requirements for 'favourable condition'	Criteria description	Criterion passed (Yes or No)	Notes
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).	Yes	
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).	Yes	
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).	Yes	
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).	Yes	
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.	No	Paths adjacent hedgerow
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles <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.	No	Potentially present
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9	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	Yes	

		of WCA ³) and recently introduced species.	contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website ⁷ .		
D2	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).	No	Areas used as paths, and also cut back to halt growth

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 Sheet: INDIVIDUAL TREES Habitat Type			
Habitat Types			
Individual trees – Urban trees			
Habitat Description			
New planted native fruit trees within other neutral grassland.			
On-site or off-site, site name and location	Off-site, adjacent site boundary	Survey date and Surveyor name	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	Prospective assessment

Condition Assessment Criteria		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).	Yes	All native
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Yes	Automatic pass
C	The tree is mature (or more than 50% within the block are mature) ¹ .	Yes	New young trees
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.	No	No damage when planted and protection used.
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Yes	None present.
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes	Planted within improved other neutral grassland
Number of criteria passed		5	
Condition Assessment Result (out of 6 criteria)		Condition Assessment Score	Score Achieved x/√
Passes 5 or 6 criteria		Good (3)	Yes
Passes 3 or 4 criteria		Moderate (2)	No
Passes 2 or fewer criteria		Poor (1)	No

Condition Sheet: GRASSLAND Habitat Type (medium, high and very high distinctiveness)			
UK Habitat Classification (UKHab) Habitat Types			
Grassland - Other neutral grassland			
On-site or off-site, site name and location	Berkshire County Sport Club	Survey date and Surveyor name	
Limitations (if applicable)		Survey reference (if relating to a wider survey)	Prospective assesment
Habitat Description			
Areas of other neutral grassland must be fenced off, to minimise damage through regular footfall, as this reduces the likelihood of achieving this habitat type. Other neutral grassland will contain at least 10 species of grasses, sedges and wildflowers per m2. Species to consider include: Crested dog's tail, Sweet vernal grass, Fescues, Small blue-green sedges, Autumn hawkbit, Yellow rattle, Common meadow-rue, Water mint, Adder's tongue, Rough hawkbit, Meadowsweet, Ox-eye daisy and common knapweed. Management will be required to prevent non-target dominant plant species taking over the habitat parcel. As such, access to the habitat parcel must be achieved from the road or similar, for external management to take place.			

Other neutral grassland should not contain any invasive non-native species, as listed on Schedule 9 of the Wildlife and Countryside Act (1981).
Bare ground should be avoided, and any areas of bare ground should be reseeded.
rotational mowing should occur to create a varied sward height.

Condition Assessment Criteria		Criterion passed	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.	Yes	
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Yes	Change limit cutting to allow varied sward height and the establishment of wider variety of flowering plants.
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ² .	Yes	No bare ground present
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%.	Yes	No bracken or bramble present within grassland
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.	Yes	
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.	Yes	Native wildflower planting to increase species variety. Adjusted management to reduce cutting.
Essential criterion for Good condition achieved (for non-acid grassland)		Yes	
Number of criteria passed		6	
Condition Assessment Result		Condition Assessment Score	Score Achieved x/√
Non-acid grassland types (Result out of 6 criteria)			
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.		Good (3)	Yes
Passes 3 - 5 criteria, including essential criterion A.		Moderate (2)	Yes
Passes 2 or fewer criteria; <u>OR</u> Passes 3 or 4 criteria excluding criterion A and F.		Poor (1)	Yes

Appendix 6: Headline BNG Results

The Defra Statutory Biodiversity Metric is provided as a separate excel spreadsheet.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.14
	Hedgerow units	0.09
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	17.96%
	Hedgerow units	14.26%
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	0.76	0.83	0.00	No additional area habitat units required to meet target ✓
Hedgerow units	10.00%	0.61	0.67	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓