HOTEL, BATH ROAD, HEATHROW

Biodiversity Net Gain Assessment

April 2025

Collingtonwinter
environmental

Report Control Sheet

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/	29/11/2024	Draft report sent to Client for comment.	EA	OC	OC
//	05/02/2025	Revised draft sent to Client for comment.	EA	OC	OC
//	29/04/2025	Final report sent to Client.	EA	OC	OC

CONTENTS

1 INTRODUCTION

1.1 SCOPE & PURPOSE

1.1.1. Collington Winter Environmental Ltd was commissioned by D E B Architects to prepare a Biodiversity Net Gain (BNG) Assessment for the Hotel development at Bath Road, Heathrow. This report has been prepared to support a planning application at the site.

1.1.2. The author of this report is Emma Anderson MSc, Consultant Ecologist, and has been overseen by Olivia Collington BSc (Hons), MIEnvSc, CEnv Director at Collington Winter Environmental Ltd. Olivia is highly experienced managing schemes and has produced many ecological reports to inform planning management plans.

1.1.3. This report has been written broadly following the Biodiversity Net Gain Report and Audit Templates (CIEEM, 2023).

1.2. LOCATION

1.2.1. Please refer to Figure 1.1 for the site location.

Figure 1.1 Site Location

1.3. OBJECTIVES

1.3.1. The report has been produced to document the methods, results and conclusions of a BNG Assessment undertaken based on the proposed development for the site to fulfil the following:

- Ensure that the mitigation hierarchy has been applied;
- Identify the baseline habitats present and provide a condition assessment;
- Identify the post development habitats on site, assess the possible target condition and provide an indication

of the likely importance of those habitats;

- Calculate the overall change in biodiversity score from pre- post development
- Provide design recommendations to maximise potential net gain achievable
- Provide an indication of likely outcomes and indicative cost as required.

1.4 PLANNING CONTEXT

1.4.1 The Government 25-year Environment Plan states that government will "embed environmental net gain principle for development."

1.4.2 National policy already sets out that planning should provide Biodiversity Net Gain (BNG) where possible. National Planning Policy Framework (NPPF) Paragraphs 174(d), 179(b) and 180(d) refer to this policy requirement and the Natural Environment Planning Practice Guidance (PPG) provides further explanation on how this should be done.

1.4.3 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. BNG will be measured using Defra's biodiversity metric and habitats will need to be secured for at least 30 years. Key points regarding BNG are listed below:

- Minimum 10% gain required calculated using Biodiversity Metric & approval of net gain plan.
- Habitat secured for at least 30 years via obligations/ conservation covenant.
- Habitat can be delivered on-site, off-site or via statutory biodiversity units.
- There will be a national register for net gain delivery sites.
- The mitigation hierarchy still applies to avoidance, mitigation, and compensation for biodiversity loss.
- Will also apply to Nationally Significant Infrastructure Projects (NSIPs)
- Does not apply to marine development.
- Does not change existing legal environmental and wildlife protections.

1.4.4 Developers will be required to undertake an assessment (using the nationally set BNG metric tool) of the current biodiversity value of their site both prior to and post the development proposal. In the event that the value of the site post-development is less than 10% better than it was prior to development then the developer will have an obligation to provide additional off-site BNG units to achieve the mandatory 10% net gain.

2 METHODS

2.1 EXISTING HABITAT (BASELINE)

2.1.1. A walkover of the site was undertaken by Collington Winter Environmental Ltd in November 2024. The walkover survey was undertaken broadly in line with standard UK HAB Methodology, Version 2 (2023).

2.2 PLANNING LAYOUT (POST-DEVELOPMENT)

2.2.1 The Proposed Ground Floor Plan (Ref: GA-001-Y) has provided a red line boundary. The following BNG includes recommendations for habitat creation to maximise the BNG within the site.

2.3 STATUTORY BIODIVERSITY METRIC

2.3.1 The BNG calculation was undertaken utilising The Statutory Biodiversity Metric from DEFRA, the site's UK Habitat map and the Site Plan. The calculation was performed by a technically competent and experienced ecologist as detailed in British Standard BS8683 – Suitably qualified person –definition in BS8683:2020.

2.3.2 The Statutory Biodiversity Metric uses habitat features as a proxy measure for capturing the value and importance of nature. The metric considers the size, ecological condition, location and proximity to nearby 'connecting' features. The metric enables assessments to be made of the present and forecast future biodiversity value of a site.

2.4 HABITAT SCORING

2.4.1 The Statutory Biodiversity Metric supplies reference documents and user guides in which to accurately evaluate and assess the different habitats on site. The methodology for the baseline and post development calculations are demonstrated in the following sections.

Baseline Units

2.4.2 To assess the quality of a habitat, and therefore calculate the units scored, the Statutory Biodiversity Metric utilises three scoring factors as detailed below.

Condition

2.4.3 The condition of a habitat is assessed utilising the Condition Sheets provided for each habitat type. These list positive indicators for each habitat and indicate how many of these indicators need to be present to meet certain thresholds of condition. These condition sheets can be found in The Statutory Biodiversity Metric habitat condition assessment sheets with instructions tool Technical (Natural England Joint Publication, 2023).

Distinctiveness

2.4.4 The distinctiveness of each habitat (area and linear) is automatically assigned by the tool, based upon national records of the occurrence and rarity of each habitat (The Statutory Biodiversity metric).

Strategic Significance

2.4.5 The idea of strategic significance works at a landscape scale. It gives additional unit value to habitats that are in preferred locations for biodiversity and other environmental objectives. Strategic significance utilises published local plans and objectives to identify local priorities for targeting biodiversity and nature improvement, such Nature Recovery Areas, local biodiversity plans, National Character Area objectives and green infrastructure strategies.

Post Development Units

2.4.6 Additional factors are implemented when assessing post development habitats.

- Difficulty of Creation/Enhancement
- Temporal Risk "Time to target condition".
- Spatial Risk (when offsite mitigation is necessary)

2.5 LIMITATIONS OF ASSESSMENT

2.5.1 Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. The conclusions and recommendations detailed in this report are based upon the site redline boundary and the development proposals as outlined by the client at the time of writing. Should there be any changes to the site redline boundary or development proposals at a later stage, this assessment should be reviewed to determine whether any amendments or additional survey work is required.

2.5.2 Habitat areas (predevelopment) have been measured using online mapping, and therefore will not be completely accurate.

2.5.3 Several of the trees on site, and any grassland present beneath the treeline and hedgerow, had been removed prior to the survey being undertaken as construction on the project had already begun. Condition assessments for these habitats have been undertaken based on adjacent and remaining vegetation.

Table 2.1 Limitations Review

Limitation	Analysis
Competence of surveyor	Condition Assessment was undertaken by Emma Anderson, Project Manager Ecologist with 2 years' experience. It was overseen by Olivia Collington BSc (Hons), MIEnvSc, CEnv, Managing Director at Collington Winter Environmental Ltd who has over 10 years professional experience in ecological consultancy and holds key experience undertaking BNG assessments and providing advice on habitat creation, management and enhancements for both developers and habitat banks.
Competence of ecologist completing the metric	The Metric was completed by Emma Anderson and overseen by Olivia Collington.
Age of survey data	The condition assessment was undertaken in November 2024 and is therefore less than 12 months old. There is no constraint to the age of survey data and this falls within best practice guidance.
Timing of survey	The survey was undertaken in November which is a sub - optimal time of year to undertake condition assessments due to the lack of vegetation and inability to assess presence of invasive non-native species accurately. In this instance, a precautionary approach has therefore been taken and the presence of invasive non- native species assumed as a "worst case" scenario.
Departure from best practice guidance	Several of the trees on site, and any grassland present beneath the treeline and hedgerow, had been removed prior to the survey being undertaken as construction on the project had already begun. Condition assessments for these habitats have been undertaken based on adjacent and remaining vegetation.

3 BASELINE CONDITIONS

3.1. STRATEGIC SIGNIFICANCE

3.1.1. The site is "*Area/compensation not in local strategy/no local strategy*."

3.2. HABITATS PRE-DEVELOPMENT

3.2.1. The pre-development habitats on site consist of a car park for an adjacent hotel, with several urban trees, hedgerow, and a small amount of grassland.

3.2.2. Table 3.1 summarises the baseline habitats and condition assessment. Please refer to the Appendix 1 for the Condition Assessment Sheets for each habitat.

Table 3.1 Habitat Type and Condition Assessment (pre-development)

Habitat Type	Area (hectares)	Condition	Description
Modified grassland	0.0536	Moderate	Small area beneath hedgerow and treeline.
Urban tree	0.0977	Moderate	A total of 24 small urban trees, 13 of which were present at the time of survey.
Developed land; sealed surface	0.1379	N/A - Other	The majority of the site comprised a car park.
Hedgerow Type	**Length (km)**	**Condition**	**Description**
Non-native and Ornamental	0.075	Poor	Managed yew hedgerow north of the site.

3.3. RETAINED AND ENHANCED HABITATS

3.3.1. The total area of developed land; sealed surface will be retained.

3.3.2. Thirteen trees totalling the equivalent of 0.0529 ha will be retained within the development.

3.4. LOST HABITATS

3.4.1. All other habitats within the red line boundary are to be lost to development.

3.5. PRE- DEVELOPMENT HABITAT BASELINE

3.5.1. Please refer to Table 3.3 summarising the Habitat Baseline for the calculation, demonstrating habitats to be retained, enhance and/or lost.

Table 3.3 Habitat Baseline

	On site Baseline	*Retained*	*Enhanced*	*Lost*
Habitat (Area) Units	*1.00*	*0.43*	-	*0.57*
Hedgerow Units	*0.08*	-	-	*0.08*

4 HABITAT CREATION

4.1.1. The following habitats creation is recommended post-development. It is anticipated that the development will have a 1-year delay in starting habitat creation.

Table 4.1 Habitat and Hedgerow Creation

Proposed habitat	Area (hectares)	Distinctiveness		Condition		Habitat Units Delivered
		Distinctiveness	Score	Condition	Score	
Modified grassland	0.0507	Low	2	Moderate	2	0.17
Developed land; sealed surface	0.0029	V.Low	0	N/A - Other	0	0.00
Urban tree	0.0163	Medium	4	Moderate	2	0.05
Proposed habitat	**Length (km)**	**Distinctiveness**		**Condition**		**Habitat Units Delivered**
		Distinctiveness	**Score**	**Condition**	**Score**	
Native hedgerow	0.07	Low	2	Poor	1	0.13
Native hedgerow	0.1	Low	2	Poor	1	0.19

5 OFFSITE HABITAT CREATION

5.1. OFFSITE HABITAT BASELINE

5.1.1. A second site under the ownership of the client has been identified for offsetting, located at Best Western Plus Moat House, Mill Lane, Reading. A walkover of the site was undertaken by Collington Winter Environmental Ltd in January 2025.

5.1.2. The hotel grounds contain areas of grassland surrounding the carpark and wider hotel area which could be used for offsetting the current biodiversity loss. It is calculated that the planting of 38 small trees within the grassland areas will offset the habitat loss, satisfy the Trading Rules, and achieve the requisite 10% net gain.

5.1.3. The offsetting site is within the Local Planning Authority (LPA) boundary or National Character Area (NCA) of impact site, assessing it with a Spatial Risk Category Score of 1.0. Both sites fall within the Thames Valley NCA: 115.

Table 5.1 Offsite Habitat Type and Condition Assessment (pre-development)

Habitat Type	Area (hectares)	Condition	Description
Modified grassland	0.1	Good	Area of modified grassland surrounding hotel carpark.

5.2. OFFSITE HABITAT CREATION

5.2.1. The grassland habitat is to be retained in a 'Good' condition with thirty-eight (38) small trees to be planted, targeting a 'Moderate' condition by targeting criteria outlined in the Appendix.

Table 5.2 Offsite Habitat Creation Habitats, area sizes and target conditions.

Proposed habitat	Area (hectares)	Distinctiveness		Condition		Habitat Units Delivered
		Distinctiveness	Score	Condition	Score	
Urban tree	0.1547	Medium	4	Moderate	2	0.46

6 SUMMARY

6.1.1. This report and the DEFRA Statutory Biodiversity Metric submitted have demonstrated that the proposed plans, habitat creation, and offsite offsetting will achieve a net gain of 10.18% in Habitat Units, and a net gain of 322.16% in Hedgerow Units.

6.1.2. The Trading Rules have been satisfied.

Figure 5.1 On site net %

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	0.10
	Hedgerow units	0.24
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	10.18%
	Hedgerow units	322.16%
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

6.1.3. It is recommended that a 30 Year Habitat Management and Monitoring Plan (HMMP) be conditioned as part of the planning permission to meeting the targeted conditions of post development habitats. The HMMP will detail full management prescriptions, for the 30-year period required as best practice for biodiversity net gain. The HMMP will be provided to all tenants and future homeowners and will detail where monitoring surveys are to be conducted.

7 BIBLIOGRAPHY

- CIEEM (2021) Biodiversity Net Gain Report and Audit Templates.
- DEFRA (2023) The Statutory Biodiversity Metric: Auditing and Accounting for Biodiversity

8 Appendix 1 – Condition Assessment Sheets

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

Urban treelines and individual trees present within a car park.

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	Bath Road, Heathrow	**Survey date and Surveyor name**	Emma Anderson 01/11/2024
		Survey reference (if relating to a wider survey)	N/A
Limitations (if applicable)	Several trees had been removed prior to the survey. The condition assessment has therefore been based on satellite and photographic imagery.		

Condition Assessment Criteria		**Habitat parcel reference**										
		1	2	3	4							
		Grid reference										
		TQ 08096 77040	TQ 08061 77036	TQ 08058 77026	TQ 08093 77020							
		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							
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							
C	The tree is mature (or more than 50% within the block are mature)[1].	Y	Y	N	N							
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							
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N	N	N	N							
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	N	N	N	N							

Number of criteria passed		4	4	3	3							
Condition Assessment Result (out of 6 criteria)	**Condition Assessment Score**	**Score Achieved ×/✓**										
Passes 5 or 6 criteria	Good (3)											
Passes 3 or 4 criteria	Moderate (2)	Y	Y	Y	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]												
Increased area of vegetation beneath trees.												

9 Appendix 2 – Post Development Target Habitat Conditions

Habitat Type: Modified Grassland		Target Condition: Poor
Condition Assessment Criteria		**Targeted**
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs. **Note - this criterion is essential for achieving Moderate or Good condition.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2, please review the full UKHab description to assess whether the grassland should 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.	Yes
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes
D	Physical damage is evident in less than 5% of total grassland area Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	No
E	Cover of bare ground between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens.)	Yes
F	Cover of bracken *Pteridium aquilinum* less than 20%.	Yes
G	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA).	Yes

Habitat Type: Individual Trees		Target Condition: Moderate
Condition Assessment Criteria		**Targeted?**
A	The tree is a native species (or more than 70% within the block are native species).	Yes
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
C	The tree is mature (or more than 50% within the block are mature).	No
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.	Yes
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes

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