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Biodiversity Net Gain Plan

25-26 Woburn Square, London

Site	*25-26 Woburn Square, London*
Project number	*159624*
Client name / Address	*University College London*

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Declaration of compliance

The information which we have provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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1. EXECUTIVE SUMMARY

In July MKA Ecology Limited was commissioned to undertake a Biodiversity Net Gain assessment for 25-26 Woburn Square, London. This Biodiversity Net Gain Plan has been prepared to detail how the biodiversity enhancements in the proposed scheme will lead to an overall benefit to biodiversity.

The Site currently comprises two buildings and rear garden colonised by ruderal and ephemeral plant species, along with a single semi-mature tree, and covers a total of 0.028 hectares. The proposed development encompasses the redesign of the garden which will involve the removal of the existing urban tree and the planting of three new small urban trees, along with creation of new planting beds, green walls, a sedum green roof, and balcony planters.

To provide an objective assessment of the potential value of the proposed biodiversity enhancements, the Defra Statutory Biodiversity Metric (Defra, 2024) has been applied. The measures, a proxy for biodiversity that use habitat types and their areas, are compared before (the existing condition) and after the completion of the proposed development.

It is concluded that the proposed development will lead to a net gain of 54.45% in biodiversity at the Site. This is primarily due to the planting of new small trees in moderate condition followed by the creation of ground-based green walls in moderate condition throughout the rear garden. New areas of sedum green roofing and balcony planting boxes also contribute a small amount to the overall net gain score.

It should be noted that the predicted net-gain in biodiversity is reliant on the successful creation of habitats and their maintenance for the foreseeable future. It will be critical to ensure that appropriate management activities are put in place in order to achieve the desired condition of the proposed habitats. It is recommended that measures to ensure the successful creation and long-term management of proposed habitats are outlined in a Habitat Management and Monitoring Plan (HMMP) for the Site.

2. INTRODUCTION

2.1. Purpose

This Biodiversity Net Gain Plan is submitted for the approval of the London Borough of Camden to show how a 10% net gain for biodiversity will be achieved as required by the LPA and to fulfil the requirements of Environment Act (2021).

The purpose of this assessment is to review the existing biodiversity value of the Site, comparing this to the proposed landscape masterplan and calculate an overall biodiversity net change for the Site. The primary method of calculating this change will follow the Defra Statutory Biodiversity Metric (Defra, 2024). The aim of using this method is to demonstrate whether the proposed development and landscape masterplan will deliver a net gain in biodiversity.

The process of achieving and assessing Biodiversity Net Gain should follow the below principles and rules, as set out within *Biodiversity Net Gain, Good Practice Principles for Development* (Baker *et al*., 2019) (Table 1) and *The Statutory Biodiversity Metric – User Guide (draft)* (Defra, 2024) (Table 2).

This Biodiversity Net Gain Plan is in line with British Standard BS8683.

Table 1: The UK's good practice principles for biodiversity net gain (Baker *et al.,* 2019)

Principle	In practice
1. Apply the mitigation hierarchy	Do everything possible to first avoid and then minimise impacts on biodiversity. Only as a last resort, and in agreement with external decision makers where possible, compensate for losses that cannot be avoided. If compensating for losses within the development footprint is not possible or does not generate the most benefits for nature conservation, then offset biodiversity losses by gains elsewhere.
2. Avoid losing biodiversity that cannot be offset elsewhere	Avoid impacts on irreplaceable biodiversity – these impacts cannot be offset to achieve NNL/net gain.
3. Be inclusive and equitable	Engage stakeholders early, and involve them in designing, implementing, monitoring and evaluating the approach to net gain. Achieve net gain in partnership with stakeholders where possible.
4. Address risk	Mitigate difficulty, uncertainty and other risks to achieving net gain. Apply well-accepted ways to add contingency when calculating biodiversity losses and gains in order to account for any remaining risks, as well as to compensate for the time between losses occurring and gains being fully realised.
5. Make a measurable net gain contribution	Achieve a measurable, overall gain for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.

Principle	In practice
6. Achieve the best outcomes for biodiversity	Achieve the best outcomes for biodiversity by using robust, credible evidence and local knowledge to make clearly-justified choices when: • Delivering compensation that is ecologically equivalent in type, amount and condition, and that accounts for the location and timing of biodiversity losses • Compensating for losses of one type of biodiversity by providing a different type that delivers greater benefits for nature conservation • Achieving Net Gain locally to the development while also contributing towards nature conservation priorities at local, regional and national levels • Enhancing existing or creating new habitat • Enhancing ecological connectivity by creating more, bigger, better and joined areas for biodiversity
7. Be additional	Achieve nature conservation outcomes that demonstrably exceed existing obligations (i.e. do not deliver something that would occur anyway).
8. Create a Net Gain legacy	Ensure Net Gain generates long-term benefits by: • Engaging stakeholders and jointly agreeing practical solutions that secure Net Gain in perpetuity • Planning for adaptive management and securing dedicated funding for long-term management • Designing Net Gain for biodiversity to be resilient to external factors, especially climate change • Mitigating risks from other land uses • Avoiding displacing harmful activities from one location to another and • Supporting local-level management
9. Optimise sustainability	Prioritise Biodiversity Net Gain and, where possible, optimise the wider environmental benefits for a sustainable society and economy.
10. Be transparent	Communicate all Net Gain activities in a transparent and timely manner, sharing the learning with all stakeholders.

Table 2: Biodiversity net gain rules (Defra, 2024)

Rule	In practice
1	The trading rules of this biodiversity metric must be followed.
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.
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.
4	In exceptional ecological circumstances, deviation from this biodiversity metric methodology may be permitted by the relevant planning authority.

3. HABITATS

3.1. Present – baseline condition survey

A Preliminary Ecological Appraisal survey was conducted by AECOM Limited (2024) in April 2024 to inform the baseline habitats present. The Site was found to cover a total of 0.028 hectares and comprises two buildings and rear gardens colonised by ruderal and ephemeral plant species, along with a single semi-mature tree. The habitats at the Site were mapped during the Preliminary Ecological Appraisal and are presented in Figure 1. The areas occupied by each habitat type are detailed in Table 4 in the next section.

A condition assessment of the baseline habitats was conducted on 11 July 2024 by MKA Ecology Limited. More information on how habitat conditions were assigned is provided in Appendix 1.

Survey constraints of the Preliminary Ecological Appraisal are described in Section 4.9.

No irreplaceable habitats are present at the Site. Please note that any impacts on designated sites and protected species that may result from the development have been addressed in the Preliminary Ecological Appraisal, which also outlines plans for mitigation and enhancement where required (AECOM Limited, 2024).

3.2. Future – proposed landscape and enhancements

The proposed development encompasses the redesign of the gardens and will involve the removal of the existing tree and the creation of new planting beds, water features, green walls and two areas of sedum green roofing, as well as balcony planters at the front of the property. The proposed habitats for Site are presented in Figure 2. Proposed habitats include vegetated garden, ground-based green walls, small urban trees, sedum roof and planters.

It is these proposed habitats that will form the basis of the calculation of ‘net-change’ in biodiversity using the Defra metric (see Section 4).

Figure 1: Baseline Habitats at 25-26 Woburn Square, London

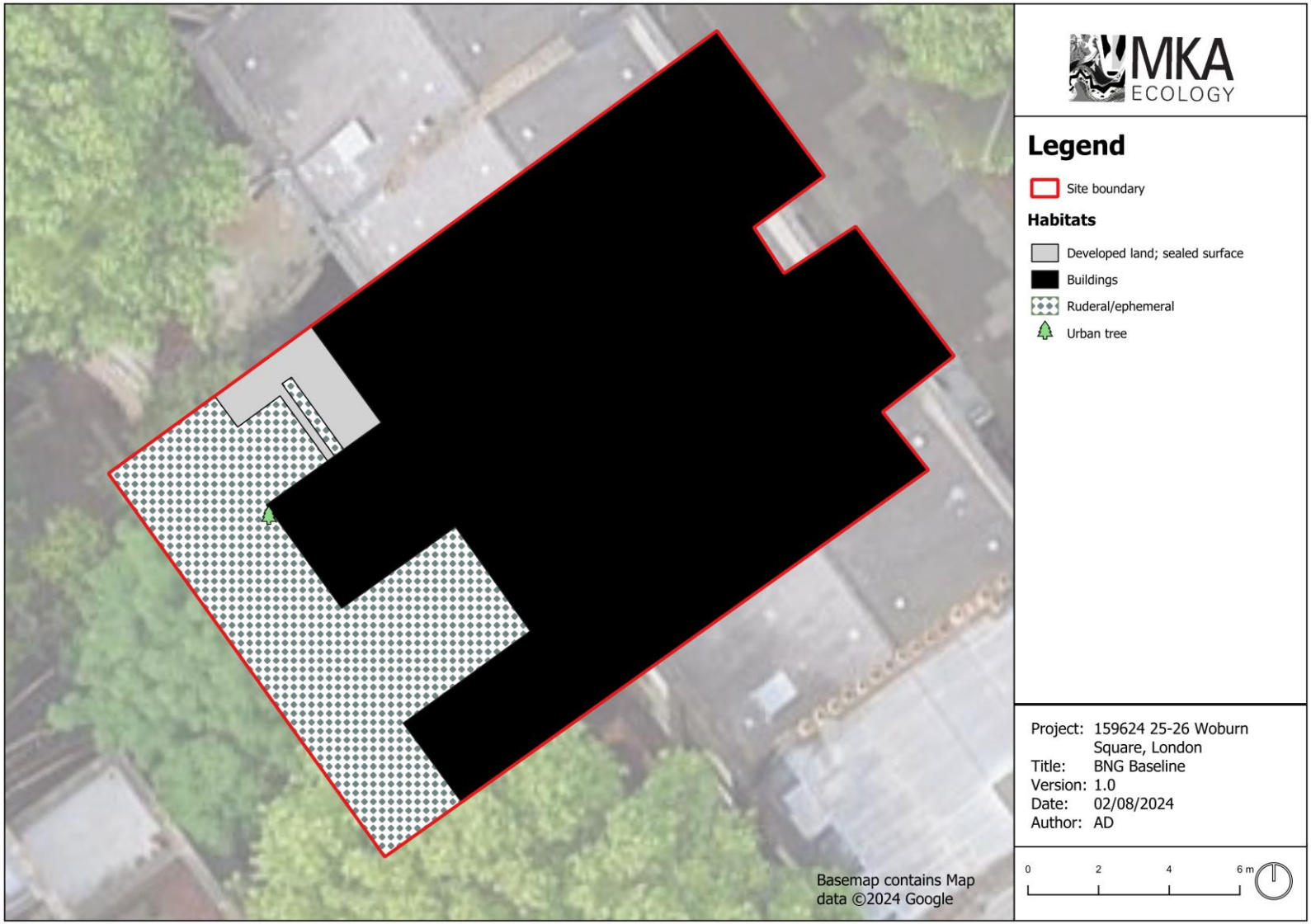
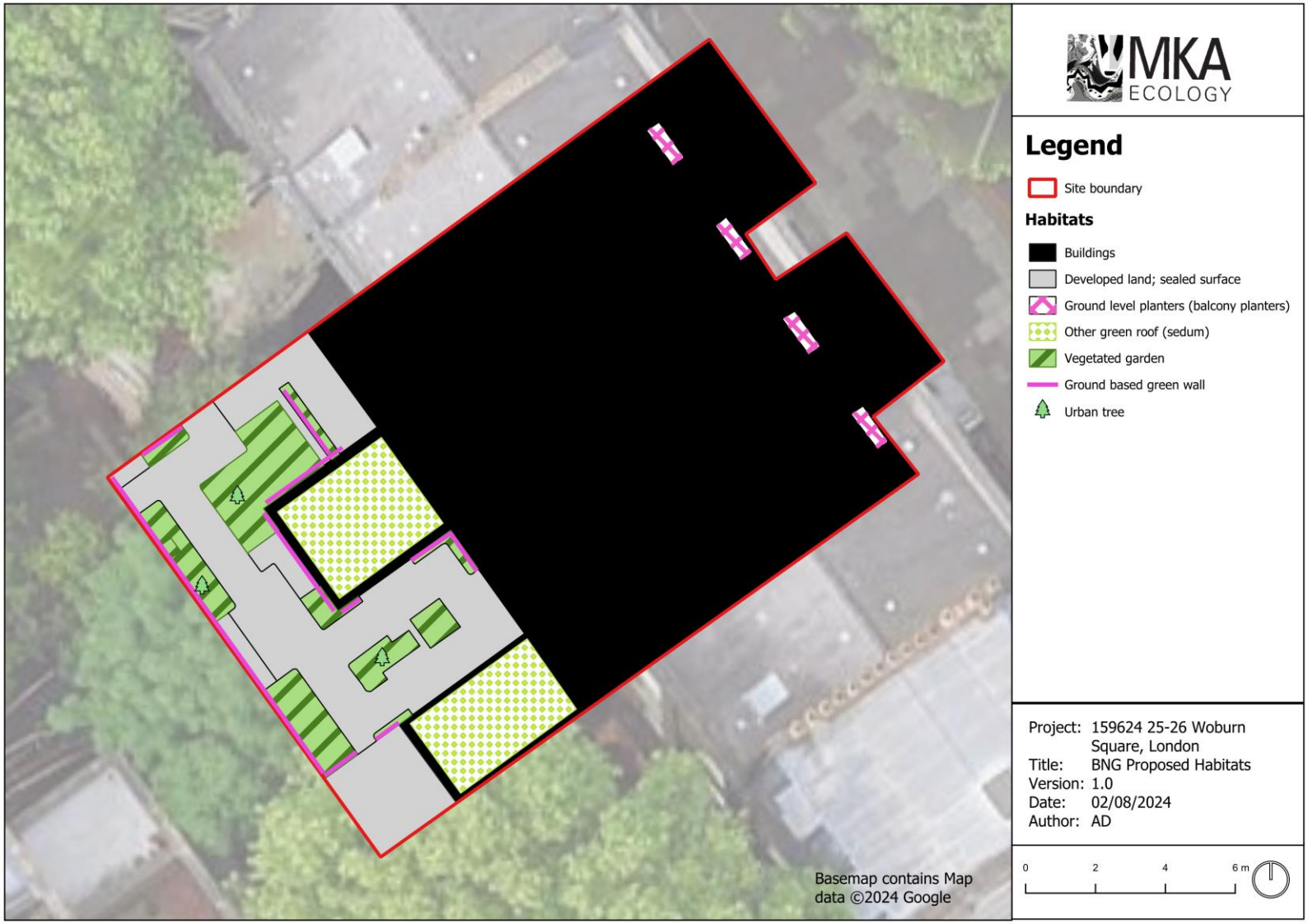


Figure 2. Proposed Habitats at 25-26 Woburn Square, London



4. METHODOLOGIES

4.1. Biodiversity Net Gain assessor

This Biodiversity Net Gain assessment was conducted by Rory Roche, Senior Ecologist at MKA Ecology Ltd. Rory has eight years' experience conducting Biodiversity Net Gain assessments and is considered a competent assessor under the Statutory Biodiversity Metric requirements (Defra, 2024). The report was drafted by Alisa Davies, Ecologist at MKA Ecology. Alisa has one year's experience conducting Biodiversity Net Gain assessments and is considered a competent assessor under the Statutory Biodiversity Metric requirements (Defra, 2024). The Biodiversity Net Gain Plan was reviewed and approved by Rory.

4.2. Assignment of habitats

To establish whether the proposed development will contribute positively to biodiversity we use the Defra Statutory Biodiversity Metric (Defra, 2024). This method uses habitat as a proxy for biodiversity and its primary application is to provide planners and developers with a method of establishing how much and what type of habitats should be created or enhanced in order to ensure that the proposed development results in a net gain for biodiversity. Habitats are assigned the following scores:

- Distinctiveness: A measure of the type and importance of a habitat.
- Condition: A measure of the present or predicted condition of a habitat type.
- Strategic significance: How a habitat is regarded within Local Planning Policy.

Habitat distinctiveness is automatically assigned in the Statutory Biodiversity Metric. Please see Appendix 1 for further information on how habitat condition and strategic significance was assigned in this assessment.

For proposed habitats, where there is an attempt to predict the habitat type following establishment additional handicaps or risk scores are imposed representing the following factors:

- Difficulty: More difficult habitats incur a greater risk.
- Time to condition: In general, it takes longer for habitats to reach a better condition, plus certain habitats by their very nature take longer to create or restore.
- If the creation or enhancement of habitats is delayed, an additional risk score is applied. This will not apply in the present case.

- If habitats are created off-site, an additional risk score is applied. This will not apply in the present case.

The multipliers used in habitat assignment in the Biodiversity Net Gain Metric are detailed further in Table 3 below.

Table 3: Multipliers used in the calculation of Biodiversity Net Gain

Multiplier	When applied	Description
Distinctiveness	Before and after	A measure of the type of habitat, automatically assigned within the Metric. Habitats with greater value are assigned a higher score.
Condition	Before and after	The condition of the habitat. Uses the Technical Annex 1 (*DEFRA, 2024b*); Higher levels of condition give rise to greater values. In some cases, no condition assessment is required and these habitats are automatically allocated a score.
Strategic significance	Before and after	Whether a habitat is important within its local context.
Time to target condition	After	Used to account for the fact that habitat creation as part of a development is rarely instant. A 'handicap' is applied, with habitats that take longer to establish resulting in a greater reduction.
Difficulty of creation/restoration	After	Habitats that are more difficult to create/restore cause a reduction in the biodiversity unit as they are associated with a greater risk of failure.
Spatial risk	After	Habitat that is created at a greater distance away from the development site carries a greater risk of removing other natural habitats.
Advanced and delayed habitat creation	After	Used to account for situations where there is a mismatch between a negative impact on biodiversity and work to create or enhance the 'post-intervention habitats'. This can either be in the form of habitat creation occurring in advance or being delayed beyond the point of baseline losses.

4.3. Trading Summary

The Defra Statutory Biodiversity Metric includes a Trading Summary which must be satisfied to achieve a positive outcome in the Net Gain assessment (see Rule 1, Table 2). The trading rules ensures that habitat losses are compensated for on a "like for like" or "like for better" basis. Newly created or enhanced habitats should achieve a higher distinctiveness and/or condition than those lost.

Further details on how the metric is calculated is provided in the aforementioned publications, with more site-specific detail provided in Appendix 1 and Appendix 2.

4.4. Mapping habitats

Current habitats were mapped and areas calculated using QGIS based on the Preliminary Ecological Appraisal carried out by AECOM (2024) and the baseline condition assessment survey carried out by MKA Ecology Limited (see Section 3.1 for details of habitat types). The proposed habitats were mapped

QGIS using a digitised and geo-referenced version of the landscaping plans provided by Charlie Hawkes Ltd (2024a, 2024b, 2024c), summarised in Figure 2 (see Section 3.2 for details of habitat types). Precise Habitat areas were provided by the landscaping team.

4.5. Hedgerows

Hedgerows, given their unique linear characteristic and their position as 'edge habitats' are treated as linear features in the Statutory Biodiversity Metric calculator and are calculated as 'biodiversity metres'. No hedgerows are present on-site and therefore this category is omitted in this assessment.

4.6. Rivers and streams

Rivers and streams, given their linear form and important role in habitat connectivity, are treated as linear features in the Statutory Biodiversity Metric calculator and are calculated as 'biodiversity metres'. The metrics calculated for rivers and streams have therefore been calculated and presented separately. No rivers are present on-site and therefore this category is omitted in this assessment.

4.7. Habitat degradation

It is confirmed that the baseline habitats have not been significantly altered or modified since 30 January 2020 and, as such, it is appropriate to assess the baseline habitats in their current condition.

4.8. Sharing data

Relevant ecological data collected during baseline habitat and protected species surveys at the Site will be shared with Greenspace Information for Greater London (GiGL) following acceptance of this Biodiversity Net Gain Plan.

4.9. Assumptions and constraints

Several assumptions are made to enable this Biodiversity Net Gain assessment. The primary assumptions are listed below:

- The net gains in biodiversity that are estimated are reliant on the successful creation of habitats and their maintenance for the foreseeable future.
- It is assumed that there will be no time delay in establishing the habitats.

Table 4: Attribution of multiplier levels to each habitat type at present and for the proposed development

Habitat type and area	Multiplier (and score)					
	Distinctiveness (automatically assigned)	Condition	Strategic significance	Time to target condition	Difficulty of creation/ enhancement	Spatial risk
Current habitats						
Developed land; sealed surface (0.0220 ha)	Very Low (0)	Not Applicable (0)	Low (1)	-	-	-
Ruderal/Ephemeral (0.0060 ha)	Low (2)	Moderate (2)	Low (1)	-	-	-
Urban tree (0.0041 ha)	Medium (4)	Poor (1)	High (1.15)	-	-	-
Proposed habitats						
Developed land; sealed surface (0.0040 ha)	Very Low (0)	Not Applicable (0)	Low (1)	-	Low (1)	-
Vegetated garden (0.0018 ha)	Low (2)	Condition Assessment N/A (1)	Low (1)	1 year (0.965)	Low (1)	-
Other green roof (0.0020 ha)	Low (2)	Condition Assessment N/A (1)	High (1.15)	1 year (0.965)	Low (1)	-
Ground based green wall (0.0054 ha)	Low (2)	Moderate (2)	High (1.15)	3 years (0.899)	Medium (0.67)	-
Ground level planters (0.0002ha)	Low (2)	Condition Assessment N/A (1)	Low (1)	1 year (0.965)	Low (1)	-
Urban tree (0.0122 ha)	Medium (4)	Moderate (2)	High (1.15)	27 years (0.382)	Low (1)	-
Habitats to be retained and enhanced						
Developed land; sealed surface (0.0200 ha)	Very Low (0)	Not Applicable (0)	Low (1)	-	-	-

5. RESULTS AND RECOMMENDATIONS

5.1. Results

The overall comparison of biodiversity units is presented in Table 5 below. The calculator used to derive these figures is provided as a separate appendix (Appendix 2) to this report. With the current layout, there will be a net gain of biodiversity of 54.45% with a positive net change of 0.2 biodiversity units.

Table 5: Results of biodiversity metric calculations

Habitat	Biodiversity units (current)*	Biodiversity units (proposed)*	Biodiversity net-change*#	Net percentage change
Habitats	0.04	0.07	0.02	54.45%

* Habitat areas are calculated as biodiversity hectares, hedgerows as biodiversity metres

rounded to two decimal places

The largest number of units (0.04 units) is generated by planting three new small *Cornus kousa var. chinensis* trees. These trees are targeted at moderate condition as stand-alone trees oversailing vegetation which will be allowed to maintain at least 75% of their canopy for their age. The second largest number of biodiversity units (0.01 units) are generated from the creation ground based green walls comprising climbers trained along trellises throughout the garden, with species including ivy *Helix hedera,* star jasmine *Trachelospermum jasminoides*, and *Schizophragma integrifolium*

Bird boxes and pollinator boxes will also be installed in the new buildings as part of the proposed landscaping plans. The Statutory Biodiversity Metric has no means to formally account for these enhancements in the net gain assessment. However, they will provide additional value for biodiversity post-development and therefore should be noted.

5.2. Recommendations

The overall net gain in biodiversity units predicted in this assessment is reliant on the successful creation of habitats and their maintenance for the foreseeable future. It is critical that habitats on-site reach the target condition estimated in this assessment and this will require careful consideration during both the planning and construction phase. It is particularly important that the new trees reach their target moderate condition

It is recommended that a Habitat Management and Monitoring Plan (HMMP) is produced for the Site. This will outline measures for the successful creation and management of habitats for a minimum of 30 years to ensure the target conditions for each habitat type is reached as outlined in this assessment.

Recommendation 1

Produce a HMMP for the Site covering a minimum of 30 years post-development.

6. CONCLUSIONS

The proposed development at 25-26 Woburn Square, London involves the redesign of the rear garden. The landscaping plans include the removal of the existing urban tree and its replacement through the planting of three new small urban trees, along with the creation of new planting beds, green walls, sedum green roofing, and balcony planters.

The use of the Defra Statutory Biodiversity Metric to calculate measures of biodiversity for the existing and proposed habitats confirm that the proposed development is likely to lead to a net gain of 54.45% in biodiversity. This net gain is primarily attributed to new urban tree planting and the creation of new green walls throughout the garden.

The predicted net-gain in biodiversity is reliant on the successful creation of habitats and their maintenance for the foreseeable future. It will be critical to ensure that appropriate management activities are put in place in order to achieve the desired condition of the proposed habitats. It is recommended that measures to ensure the successful creation and long-term management of proposed habitats are outlined in a HMMP for the Site.

7. REFERENCES

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8. APPENDICES

8.1. Appendix 1: Assignment of biodiversity metric multipliers

Strategic significance

In the absence of a Landscape Nature Recovery Strategy, examples of urban greening, including green roofs, green walls, urban trees and flower-rich planting in gardens are all formally identified and targeted within the Camden Biodiversity Action Plan (2017), while urban trees, green roofs and green walls are identified as priority habitats in the London Plan (2021). Therefore, all were assigned 'high' strategic significance. All other baseline and newly created habitats were assigned 'low' strategic significance.

Condition

The below tables detail the rationale for the condition assessments made for each habitat type.

Current habitats

Habitat	Condition	Rationale for condition assessment
Developed land; sealed surface (0.0218 ha)	Not Applicable	No condition assessment required – allocated a score of 0.
Ruderal/Ephemeral (0.0061 ha)	Moderate	This habitat is assessed as an Urban habitat and has passed two of three criteria: • Failed Criterion A - The vegetation did not have structural diversity, comprising a ground layer of ivy and bramble *Rubus fruticosus* agg. with some forbs including soft shield fern *Polystichum setiferum* and tutsan *Hypericum androsaemum*. • Passed Criterion B - Ivy and bramble, two of the more prevalent species, flower at different times of the year, including late autumn, providing resources for invertebrates year-round. • Passed Criterion C - Despite the presence of bluebell *Hyacinthoides* sp. reported in the Preliminary Ecological Appraisal, these do not cover over 5% of the area.
Urban tree (0.0041 ha)	Poor	This tree fails four of the criteria: • Failed Criterion A – The tree is a non-native species • Failed Criterion C – The tree was identified as semi-mature • Failed Criterion D – The tree has been subject to intensive management and pruning such that it has not attained its expected canopy for its age. • Failed Criterion E – The tree does not support any ecological features or niches.

Proposed habitats

Habitat	Condition	Rationale for condition assessment
Developed land; sealed surface (0.004 ha)	Not Applicable	No condition assessment required – allocated a score of 0

Habitat	Condition	Rationale for condition assessment
Vegetated garden (0.0018 ha)	Not Applicable	No condition assessment required – allocated a score of 1
Other green roof (0.0020 ha)	Not Applicable	No condition assessment required – allocated a score of 1
Ground based green wall (0.0054 ha)	Not Applicable	This habitat is assessed as an Urban habitat and is targeted to pass two of three criteria: • Fail Criterion A – It is challenging to achieve a varied vegetation structure within a ground based green wall; • Pass Criterion B – In addition to summer-flowering species such as star jasmine, ivy flowers into late autumn, providing resources for invertebrates year-round; • Pass Criterion C – No invasive non-native species are included in the planting scheme;
Ground level planters (0.0002ha)	Not Applicable	No condition assessment required – allocated a score of 1
Urban tree (0.0122 ha)	Moderate	These trees are targeting moderate condition because they are predicted to meet three of the six criteria at age of maturity: • Pass Criterion B – As individual trees, this criterion is automatically passed; • Pass Criterion D – It is expected that these trees will not be heavily pruned and will be allowed to grow to 75% of their expected canopy for their age. This will be detailed within the HMMP; • Pass Criterion F – The trees will be situated over planting beds and therefore will be oversailing vegetation.

8.2. Appendix 2: Biodiversity net gain calculator

As attachment.

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