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Biodiversity Net Gain Plan

Weybridge Business Park, Addlestone

Site	Weybridge Business Park, Addlestone
Project number	121121
Client name / Address	Bridge Industrial Ltd, 14 Old Bond Street, London, W1S 4PP

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1.0	29 April 2022	Original
2.0	20 October 2022	Amendments in line with revised site design, inclusion of River Condition Assessment
3.0	17 January 2023	Update to woodland habitat classification and amendments to net gain calculation

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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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CONTENTS

1.	EXECUTIVE SUMMARY	4
2.	INTRODUCTION	5
2.1.	Purpose.....	5
3.	HABITATS	8
3.1.	Present – baseline condition survey	8
3.2.	Future – proposed landscape and enhancements	8
4.	METHODOLOGIES	12
4.1.	Biodiversity Net Gain assessor.....	12
4.2.	Assignment of habitats	12
4.3.	Trading summary	13
4.4.	Mapping habitats	14
4.5.	Hedgerows.....	14
4.6.	Rivers and streams	14
4.7.	Habitat degradation	15
4.8.	Assumptions and constraints.....	15
5.	RESULTS AND RECOMMENDATIONS	20
5.1.	Results	20
5.1.	Recommendations	21
6.	CONCLUSIONS	22
7.	REFERENCES	23
8.	APPENDICES	24
8.1.	Appendix 1: Assignment of Biodiversity Metric Multipliers	24
8.2.	Appendix 2: Biodiversity net gain calculator	27

1. EXECUTIVE SUMMARY

In November 2021 MKA Ecology Limited was commissioned to undertake a Biodiversity Net Gain assessment for Weybridge Business Park, Addlestone. 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 buildings and associated hardstanding, with small areas of grassland, scrub and areas of introduced shrubs present throughout. An area of woodland is also present within the north of the Site, whilst the Addlestone Bourne is present within 10m of the southern boundary of the northern land parcel. The proposed development involves the demolition of the existing buildings and the development of number of new industrial buildings, along with associated parking and landscaping. The newly proposed habitats include introduced shrubs, species rich grassland, riparian planting, mixed scrub and scattered trees.

To provide an objective assessment of the potential value of the proposed biodiversity enhancements, the Defra Biodiversity Metric 3.0 (Panks *et al.*, 2021) is 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 2.28 biodiversity units, comprising a gain of 1.98 units onsite and 0.30 units offsite, and a net gain of 1.56 hedgerow units. Therefore, the final Net Gain score for Weybridge Business Park is a 63.25% increase in habitat units and a 122.59% increase in hedgerow units.

The Addlestone Bourne will be retained and protected under the proposals. Enhancements proposed to the river bank within the Site boundary will result in improved ecological conditions, but not sufficient to change the baseline river biodiversity net gain score. It is not considered feasible to undertake the measures required, such as river bank reprofiling works, or removal of the artificial reinforcement features present, to provide significant enhancements to the river.

It should be noted that the predicted net-gain in biodiversity is reliant on the successful restoration and/or creation of terrestrial 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 Landscape and Ecology Management Plan (LEMP) for the Site.

2. INTRODUCTION

2.1. Purpose

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 Defra Biodiversity Metric 3.0 (Panks *et al.*, 2021). 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 Biodiversity Metric 3.0: auditing and accounting for biodiversity value. User guide* (Panks *et al.*, 2021b) (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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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 (Panks *et al.*, 2021b)

Rule	In practice
1	Where the metric is used to measure change in biodiversity unit values need to be calculated prior to the intervention and post-intervention for all parcels of land/linear features affected.
2	Compensation for habitat losses can be provided by creating new habitat, by restoring or enhancing existing habitats, or by accelerating successional processes. Measures to improve existing habitats must provide a significant and demonstrable uplift in distinctiveness and/or condition to record additional biodiversity units.
3	‘Trading down’ must be avoided. Losses of habitat are to be compensated for on a “like for like” or “like for better” basis, new or restored habitats should aim to achieve a higher distinctiveness and /or condition than habitats lost.
4	Biodiversity unit values generated by biodiversity metric 3.0 are unique to this metric and cannot be compared to unit outputs from version 2.0, the original Defra metric or any other biodiversity metric. Furthermore, the three types of biodiversity units generated by this metric (for area, hedgerow and river habitats) are unique and cannot be summed.
5	It is not the area of habitat that determines whether the ecological equivalence or better has been achieved but the net change in biodiversity units. Risks associated with enhancing or creating habitats mean that it may be necessary to enhance or create a larger area of habitat than lost to fully compensate for impacts on biodiversity.

Rule	In practice
6	Deviations from the published methodology of biodiversity metric 3.0 need to be ecologically justified and agreed with relevant decision makers. While the methodology is expected to be suitable in the majority of circumstances it is recognised that there may be exceptions. Any local or project-specific adaptations of the metric must be transparent and fully justified.

3. HABITATS

3.1. Present – baseline condition survey

A Preliminary Ecological Appraisal and Preliminary Roost Assessment was conducted by MKA Ecology Ltd in November 2021 and updated in October 2022 (MKA Ecology Ltd, 2022) to inform the baseline habitats present. The Site was found to cover a total of 3.93 hectares and comprises a number of industrial units with associated hardstanding and landscaping; an area of woodland is also present within the northern section of the Site. The Biodiversity Net Gain Plan also includes an offsite area of modified grassland, located adjacent to the southern section of the Site.

A river, the Addlestone Bourne, is present within 10m of the southern boundary of the northern land parcel and, as such, the development has the potential to impact the riparian zone of this watercourse. Accordingly, a River Condition Assessment has been undertaken in order to inform this Biodiversity Net Gain Assessment.

The habitats were mapped during the Preliminary Ecological Appraisal and are presented in Figure 1. The areas occupied by each habitat type are detailed in Table 5 in the next section. A condition assessment of the baseline habitats was conducted on 22 November 2022. A River Condition Assessment of the Addlestone Bourne was conducted on 6 October 2022. More information on how habitat conditions were assigned is provided in Appendix 1.

Mature woodland is present within the Site boundary. This habitat is being retained and enhanced under the existing proposals. Impacts on designated sites and protected species that may result from the development have been addressed in the Preliminary Ecological Appraisal and Preliminary Roost Assessment, which also outlines plans for mitigation and enhancement where required (MKA Ecology Ltd, 2022).

3.2. Future – proposed landscape and enhancements

The proposed development is for the demolition of the existing industrial buildings and the construction of three new larger industrial units. Each unit will be built within the existing hardstanding footprint, along with new associated loading areas and car parking areas. The landscape masterplan (LDA Design) for the Site is presented in Figure 2 and Figure 3. Proposed habitats include species rich grassland, introduced shrubs, riparian planting, mixed scrub and scattered trees, with enhancements to existing areas of woodland. The offsite area of modified grassland will be enhanced to species-rich neutral grassland. Together, these habitats will form the basis of the calculation of ‘net-change’ in biodiversity using the Defra metric (see Section 4).

Figure 1: Existing habitats at Weybridge Business Park, Addlestone

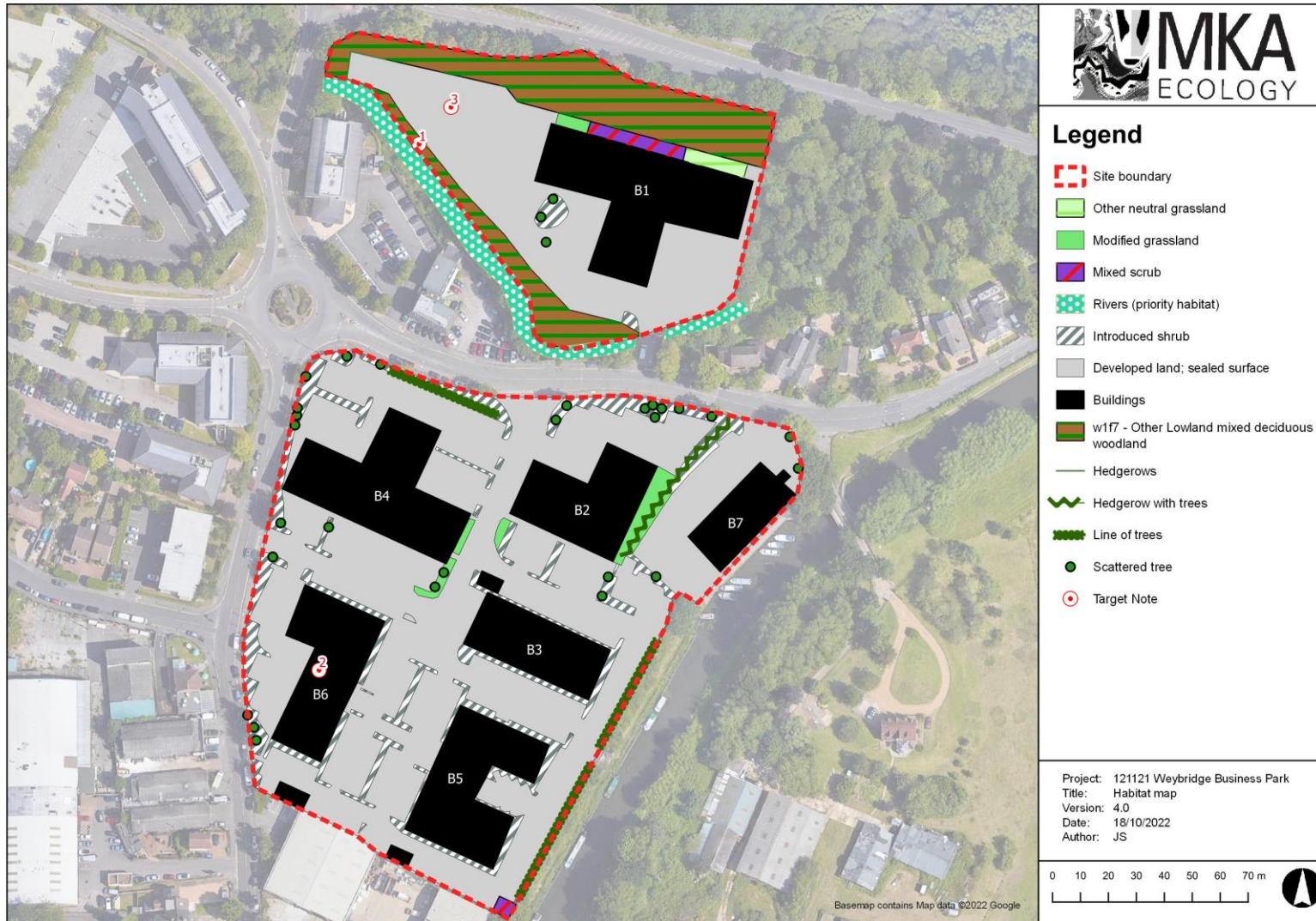


Figure 2: Landscape Masterplan for Weybridge Business Park (LDA Design) – North Section

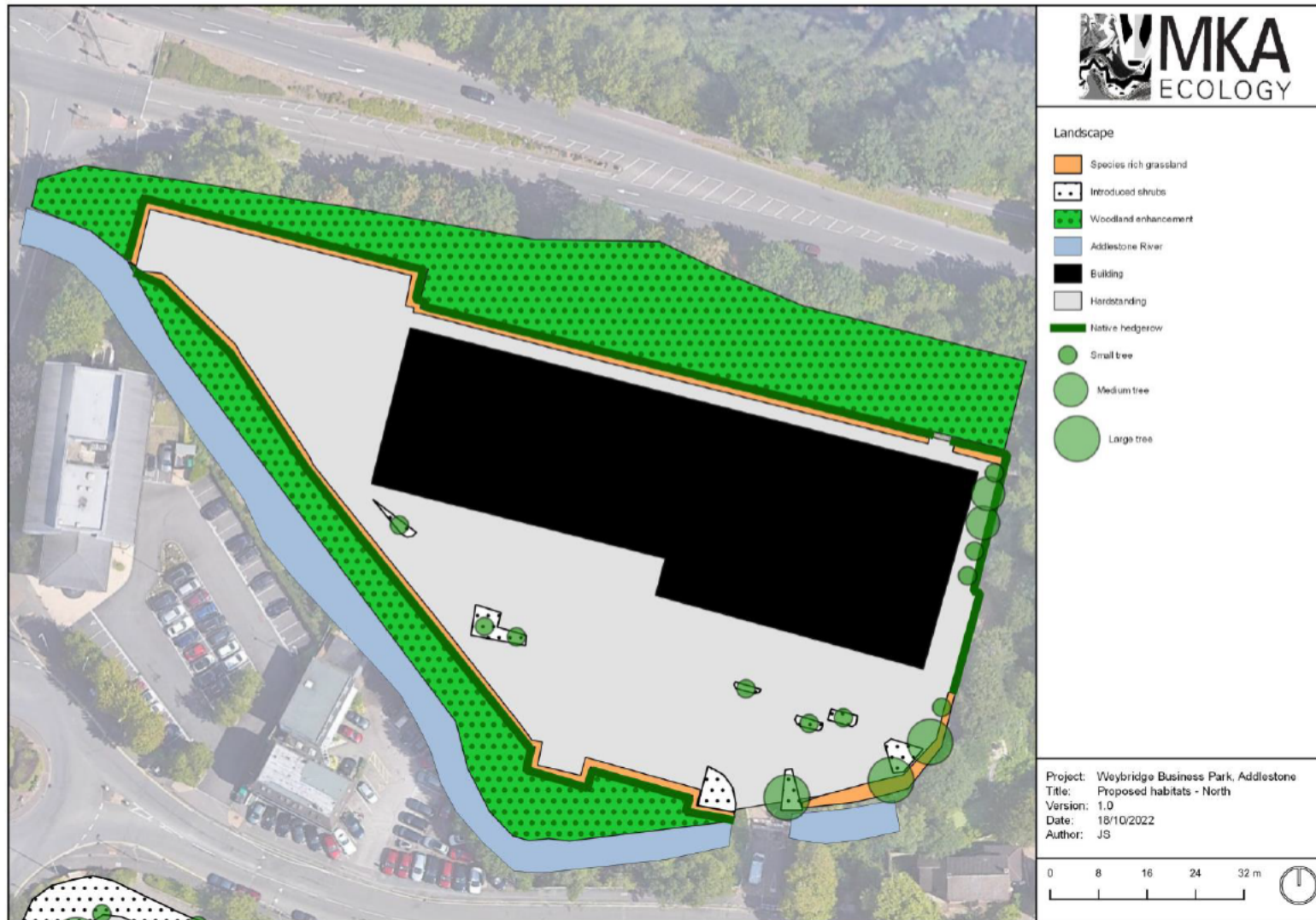
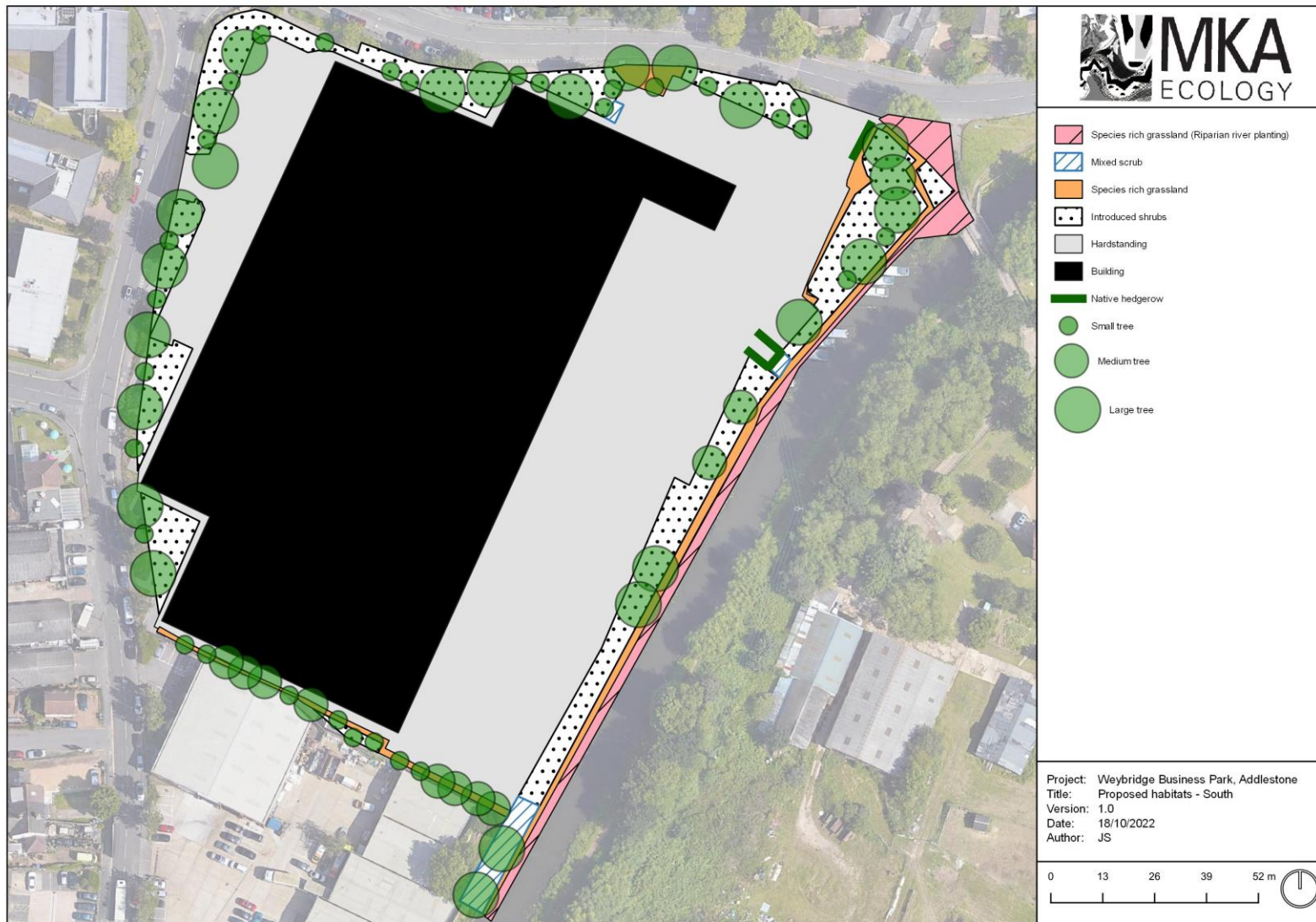


Figure 3: Landscape Masterplan for Weybridge Business Park (LDA Design) – South Section



4. METHODOLOGIES

4.1. Biodiversity Net Gain assessor

This Biodiversity Net Gain assessment was conducted by Jo Sykes, Graduate Ecologist at MKA Ecology Ltd. Jo has one years' experience conducting Biodiversity Net Gain assessments and is competent in undertaking condition assessments. The River Condition Assessment was undertaken by Lydia Ennis ACIEEM, Consultant Ecologist at MKA Ecology Ltd. Lydia has two years' experience conducting Biodiversity Net Gain assessments and is a trained River Condition Assessment practitioner.

The Biodiversity Net Gain Plan was reviewed by Rory Roche ACIEEM, Senior Ecologist at MKA Ecology Ltd., and approved by Will O'Connor CEcol MCIEEM, Director and Principal Ecology at MKA Ecology Ltd. Rory has over six years of experience as a consultant ecologist, whilst Will has over ten years' experience as a consultant ecologist. Both Rory and Will are considered competent assessors under the Biodiversity Metric 3.0 requirements (Panks *et al.*, 2021a)

4.2. Assignment of habitats

To establish whether the proposed development will contribute positively to biodiversity we use the Defra Biodiversity Metric 3.0 (Panks *et al.*, 2021a). 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 Biodiversity Metric 3.0. 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 3.0. Habitats with greater value are assigned a higher score.
Condition	Before and after	The condition of the habitat. Uses the Technical Supplement (<i>Panks et al. 2021a</i>); 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 Biodiversity Metric 3.0 includes a Trading Summary which must be satisfied to achieve a positive outcome in the Net Gain assessment. 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. More information is provided in Table 2 (see Rule 3).

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 during the Preliminary Ecological Appraisal and Preliminary Roost Assessment (see Section 3.1 for details of habitat types). The proposed habitat areas were provided by LDA Design.

4.5. Hedgerows

Hedgerows, given their unique linear characteristic and their position as ‘edge habitats’ are treated as linear features in the Biodiversity Metric calculator and are calculated as ‘biodiversity metres’. The metrics calculated for hedgerows have therefore been calculated and presented separately. Current and proposed hedgerows were mapped, with existing hedgerows calculated using QGIS and proposed hedgerow lengths provided by LDA Design.

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 Biodiversity Metric calculator and are calculated as ‘biodiversity metres’. The metrics calculated for rivers and streams have therefore been calculated and presented separately.

Assessment of the multiplier ‘condition’ for rivers and streams is calculated using a bespoke methodology developed by Gurnell *et al.*, (2021). The River Condition Assessment combines field and desk-gathered data to produce a condition score for a reach of river or stream within a site. This score is calculated for both banks of a river, even if only one bank is included within the Site boundary.

In addition to the multipliers listed in Table 3, two further multipliers are used to calculate biodiversity units for rivers and streams. These are explained in Table 4 below.

Table 4: Additional multipliers used in the calculation of Biodiversity Net Gain units for rivers and streams

Multiplier	When applied	Description
Watercourse encroachment extent	Before and after	A measure of the extent of development that occurs within the banks or in the river channel, e.g. engineered bank revetments. The multiplier assumed that these human interventions negatively affect hydrological and geomorphological processes, and the function of the river corridor. Green engineering interventions are excluded.
Riparian encroachment extent	Before and after	A measure of the extent of development that occurs within the riparian zone, defined as 10m from the top of each riverbank. This area would naturally be periodically flooded, and directly influences the hydrological, geomorphological and biological functions and processes within the river channel.

More information on how these multipliers were applied to the Addlestone Bourne is given in Appendix 1, alongside information on condition assessments.

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. Assumptions and constraints

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

- The woodland within the Site was surveyed in November, which is outside the optimum survey period to accurately identify ground flora species. This has been taken into consideration during the condition assessment and the woodland has been assigned moderate condition as a precaution, despite lacking suitable ground flora during the survey;
- Following the Preliminary Ecological Appraisal and Preliminary Roost Assessment, the application boundary was extended to the north, into the woodland adjacent to Weybridge Road. Examination of existing aerial imagery and photographs taken during the Site visit have been used to classify the habitats outside the original survey area. No condition assessment of this woodland block was conducted during the survey work undertaken;
- The net gains in biodiversity that are estimated are reliant on the successful restoration and/or creation of habitats and their maintenance for the foreseeable future; this is particularly true of the woodland habitats; and
- It was not possible to access all areas of the Addlestone Bourne during the River Condition Assessment survey. The reach of the watercourse present downstream of the access bridge into the Site runs adjacent to private residential properties and is fenced off. Observations were made downstream from the access bridge and it is considered that the field survey, conducted in the reach upstream of the bridge, is representative of the whole stretch of the Addlestone Bourne included in this assessment.

Table 5: Attribution of multiplier levels to each existing, retained and proposed habitat type

Habitat type and area (ha)	Multiplier (and score)					
	Distinctiveness (automatically assigned)	Condition	Strategic significance	Time to target condition	Difficulty of creation/ enhancement	Spatial risk
<i>Existing habitats</i>						
Urban - Introduced shrub (0.293 ha)	Low (2)	Poor (1)	Low (1)	-	-	Within site
Urban – Developed land; sealed surface (3.306 ha)	V. Low (0)	n/a – Other	Low (1)	-	-	Within site
Urban – Urban tree (0.1221 ha)	Medium (4)	Moderate (2)	Low (1)	-	-	Within site
Grassland – Modified grassland (0.041 ha)	Low (2)	Moderate (2)	Low (1)	-	-	Within site
Grassland – Other neutral grassland (0.012 ha)	Medium (4)	Moderate (2)	Low (1)	-	-	Within site
Heathland and shrub – Mixed scrub (0.021 ha)	Medium (4)	Poor (1)	Low (1)	-	-	Within site
Woodland and forest – Lowland mixed deciduous woodland (0.258 ha)	High (6)	Moderate (2)	Low (1)	-	-	Within site
Grassland – Modified grassland (0.052 ha)	Low (2)	Moderate (2)	Low (1)	-	-	Offsite
<i>Retained and enhanced habitats</i>						
Urban – Urban tree (0.0814 ha)	Medium (4)	Moderate (2)	Low (1)	-	-	Within site
Woodland and forest – Lowland mixed deciduous woodland (0.258 ha)	High (6)	Good (3)	Low (1)	20 years (0.49)	High (0.33)	Within site

Habitat type and area (ha)	Multiplier (and score)					
	Distinctiveness (automatically assigned)	Condition	Strategic significance	Time to target condition	Difficulty of creation/ enhancement	Spatial risk
<i>Proposed habitats</i>						
Urban - Introduced shrub (0.368 ha)	Low (2)	Poor (1)	Low (1)	1 year (0.965)	Low (1)	Within site
Grassland – Other neutral grassland (species rich grassland) (0.114 ha)	Medium (4)	Moderate (2)	Low (1)	5 years (0.837)	Low (1)	Within site
Grassland – Other neutral grassland (riparian river planting) (0.005 ha)	Medium (4)	Moderate (2)	Low (1)	5 years (0.837)	Low (1)	Within site
Heathland and shrub – Mixed scrub (0.0021 ha)	Medium (4)	Moderate (2)	Low (1)	5 years (0.837)	Low (1)	Within site
Urban – Urban tree (0.3943 ha)	Medium (4)	Moderate (2)	Low (1)	27 years (0.382)	Low (1)	Within site
Urban – Developed land; sealed surface (3.200 ha)	V. Low (0)	N/A – Other	Low (1)	0 years (1.00)	Low (1)	Within site
Grassland – Other neutral grassland (riparian river planting) (0.052 ha)	Medium (4)	Moderate (2)	Low (1)	5 years (0.837)	Low (1)	Offsite

Table 6: Attribution of multiplier levels to each existing, retained and proposed hedgerow type

Habitat type and area (ha)	Multiplier (and score)					
	Distinctiveness (automatically assigned)	Condition	Strategic significance	Time to target condition	Difficulty of creation/ enhancement	Spatial risk
<i>Existing hedgerows</i>						
Native hedgerow with trees (0.058 km)	Medium (4)	Good (3)	Low (1)	-	-	-
Hedge Ornamental Non-Native (0.031 km)	V. Low (1)	Poor (1)	Low (1)	-	-	-
Line of Trees (0.041 km)	Low (2)	Moderate (2)	Low (1)	-	-	-
Line of Trees (0.042 km)	Low (2)	Moderate (2)	Low (1)	-	-	-
Line of Trees (0.053 km)	Low (2)	Moderate (2)	Low (1)	-	-	-
<i>Retained hedgerows</i>						
Line of Trees (0.041 km)	Low (2)	Moderate (2)	Low (1)	-	-	Within site
Line of Trees (0.042 km)	Low (2)	Moderate (2)	Low (1)	-	-	Within site
<i>Proposed hedgerows</i>						
Native species rich hedgerow (0.373 km)	Medium (4)	Moderate (2)	Low (1)	5 years (0.837)	Low (1)	Within site

Table 7: Attribution of multiplier levels to each existing, retained and proposed river type

Habitat type and area (ha)	Multiplier (and score)					
	Distinctiveness (automatically assigned)	Condition	Strategic significance	Time to target condition	Difficulty of creation/ enhancement	Spatial risk
<i>Existing rivers</i>						
Other rivers and streams (0.200 km)	High (6)	Fairly poor (1.5)	High (1.15)	-	-	-
<i>Retained rivers</i>						
Other rivers and streams (0.200 km)	High (6)	Fairly poor (1.5)	High (1.15)	-	-	-

5. RESULTS AND RECOMMENDATIONS

5.1. Results

The overall comparison of biodiversity units is presented in Table 8 below. The calculator used to derive these figures is provided as a separate appendix (Appendix 2) to this report.

Table 8: Results of biodiversity metric calculations

Habitat	Biodiversity units (current)*#	Biodiversity units (proposed)*#	Biodiversity net-change**	Net percentage change#
Habitats	3.72	6.00	2.28	63.25%
- Onsite	3.6	5.58	1.98	-
- Offsite	0.12	0.42	0.30	-
Hedgerows	1.27	2.83	1.56	122.59%
Rivers	1.24	1.24	0.00	0.00%

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

Figure rounded down to two decimal places

Under the current proposals, there will be a net gain of 2.28 biodiversity units, comprising a gain of 1.98 units onsite and 0.30 units offsite, and a net gain of 1.56 hedgerow units. Therefore, the final Net Gain score for Weybridge Business Park is a 63.25% increase in habitat units and a 122.59% increase in hedgerow units.

The existing river habitat present in close proximity to the southern boundary of the northern Site parcel will be retained and protected under the proposals. The main variables identified as limiting the river biodiversity unit score for the Addlestone Bourne were the extent of artificial ground cover on the bank top (within 10m of the channel); the dominance and extent of non-native invasive floating pennywort *Hydrocotyle ranunculoides* in the channel; and the channel's physical homogeneity, with no in-channel or bankside features recorded. Whilst the proposed development will reduce the extent of artificial ground cover encroaching into the banktop within the Site, the opposite bank, adjacent to Addlestone Road and other commercial properties, is highly modified, such that changes to bankside habitat within the Site are not sufficient to improve the biodiversity unit score for the whole riparian corridor. In this instance, it is not considered feasible to undertake river bank reprofiling works or to remove the artificial reinforcement features present to provide significant enhancements to this feature, particularly given the presence of these features outside of client ownership.

Bird and bat boxes and invertebrate enhancements will also be installed in the new buildings and within the woodland as part of the proposed landscaping plans. The Defra Biodiversity Metric 3.0 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.

5.1. Recommendations

The overall net gain in biodiversity units predicted in this assessment is reliant on the successful restoration and/or creation of habitats and their maintenance for the foreseeable future. It is critical that habitats and hedgerows 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 recommended that a Landscape and Ecology Management Plan (LEMP) 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 Landscape and Ecology Management Plan (LEMP) for the Site covering a minimum of 30 years post-development.

6. CONCLUSIONS

The proposed development at Weybridge Business Park involves the demolition of the existing industrial buildings and the construction of three new larger industrial units. Each unit will be built within the existing hardstanding footprint, along with new associated loading areas and car parking areas. The landscaping plans include introduced shrubs, species rich grassland, riparian planting, mixed scrub and scattered trees, with additional enhancements to the existing areas of woodland.

The use of the Defra Biodiversity Metric 3.0 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 47.24% increase in habitat units and a 122.59% increase in hedgerow units. The Addlestone Bourne will be retained and protected under the proposals, however given that it is not considered feasible to undertake river bank reprofiling works or to remove the artificial reinforcement features present to provide significant enhancements to this feature, the enhancement of the bank top vegetation cover will not result in a significant increase in river units following the proposed development.

The predicted net-gain in biodiversity is reliant on the successful restoration and/or 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 Landscape and Ecology Management Plan (LEMP) for the Site.

7. REFERENCES

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8. APPENDICES

8.1. Appendix 1: Assignment of Biodiversity Metric Multipliers

Strategic significance

Strategic significance was set to 'low' for all baseline habitats and newly created habitats. The Site does not fall in a priority area, or comprise priority habitats, formally identified in the Runnymede local plan.

The Addlestone Bourne was identified as being of high strategic significance (within catchment plans). This watercourse is a main river (Environment Agency, 2022) and although not formally identified within the Environment Agency's River Basin Management Plan for the wider catchment, it no doubt plays a key role in flood management for the local area, which is densely developed with a high concentration of river channels. The Addlestone Bourne also forms an important corridor for local wildlife populations moving through the otherwise predominantly urban environments immediately surrounding the Business Park.

Condition

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

Current habitats

Habitat	Condition score	Rationale for condition assessment
Introduced shrubs	Poor	No condition assessment required – automatically allocated a condition of poor
Urban – developed land; sealed surface	N/A – other	No condition assessment required – allocated a score of 0
Urban – Urban tree	Moderate	Passes three criteria, lacking mature trees and ecologically beneficial management
Grassland – Modified grassland	Moderate	Passes four criteria, lacking in species diversity so unable to achieve good condition
Grassland – Other neutral grassland	Moderate	Passes four criteria, failing criteria five due to high coverage of undesirable species
Heathland and shrub – Mixed scrub	Poor	Fails the majority of criteria, passing only condition one with a lack of dominant species and three woody species present.
Woodland and forest – Lowland mixed deciduous woodland	Poor	Achieved a score of 25/39, failing conditions including ancient woodland indicators, the presence of veteran trees and age classes

Current hedgerows

Habitat	Condition score	Rationale for condition assessment
Native hedgerow with trees	Good	No more than two failures in total and no more than one in any functional group, failing C1 and E1

Habitat	Condition score	Rationale for condition assessment
Hedgerow Ornamental non-native	Poor	No more than four failures in total and fails both attributes in a maximum of one functional group (fails B2, C2 and D1)
Line of trees	Moderate	All lines of trees pass conditions 1, 2 and 5, lacking mature trees and undisturbed ground.

Retained and enhanced habitats

Habitat	Condition score	Rationale for condition assessment
Woodland and forest – Lowland mixed deciduous woodland	Moderate	Enhancements in the woodland structure through understorey, scrub and ground flora planting will improve the woodland condition, but are unlikely to increase the condition assessment from moderate to good.

Retained lines of trees

Habitat	Condition score	Rationale for condition assessment
Line of trees	Moderate	Due to the location of the lines of trees between hardstanding and the adjacent footpath, these cannot improve in condition.

Proposed habitats

Habitat	Condition score	Rationale for condition assessment
Urban – Introduced shrub	Poor	No condition assessment required – automatically allocated a condition of poor
Urban – Urban tree	Moderate	Several non-uk native species to be planted, with many of the trees likely to be regularly managed and unlikely to be maintained for micro habitats.
Grassland – Other neutral grassland (Species rich grassland)	Moderate	Grassland areas are likely to be regularly managed for amenity purposes so will lack varied sward height but will meet all other criteria.
Grassland other neutral grassland (riparian planting)	Moderate	Grassland is unlikely to closely match that of the UKHabs definition, but can be managed appropriately to meet all other criteria.
Heathland and shrub – Mixed scrub	Moderate	Habitat will support multiple woody species but due to limited space is unlikely to develop edge habitat or support clearings or glades

Proposed hedgerows

Habitat	Condition score	Rationale for condition assessment
Native species rich hedgerow	Moderate	Likely to fail a total of more than 2 attributes (likely fails A2, C1 and D2)

Current river

Attribute	Multiplier (and score)	Rationale
Condition	Fairly poor (1.5)	Score automatically assigned using data gathered from field survey and desktop study. Factors most influential in score are the extent of artificial ground cover on bank top (within 10m of channel), extent of floating pennywort presence, and homogeneity of the channel, with no in-channel or bankside features recorded.
Watercourse encroachment extent	Minor (0.8)	20% of total bank length (including both banks) estimated to comprise engineered bank revetment.

Attribute	Multiplier (and score)	Rationale
Riparian encroachment extent	Major (0.75)	Data from field survey shows that, on both banks, development occupies >25% of the total riparian zone area.

8.2. Appendix 2: Biodiversity net gain calculator

As attachment.



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