BIODIVERSITY NET GAIN ASSESSMENT (BNGA)

PROJECT NAME: High Street, Stilton, PE7 3RD

PURPOSE: Prepared in order to inform a planning application.

DATE: 11th February 2024

1. Introduction

1.1. Background

1.1.1. Allied Ecology has been appointed to undertake a Biodiversity Net Gain Assessment in respect of the proposals at High Street, Stilton, PE7 3RD (grid reference TL 16280 89091).

1.1.2. The site is located at the southern extent of Stilton, southwest of Peterborough, and comprises areas of hardstanding and vacant / derelict land. The site is located within a semi-rural setting and is bound on all aspects by existing residential curtilages. Beyond the site, there is largely agricultural land to the south.

1.2. Ecological Survey Work

1.2.1. This Biodiversity Net Gain Assessment has been informed by ecological survey work undertaken at the site. Allied Ecology Ltd undertook a habitat survey on the 5th February 2025, based on the standard UK Habitat Classification[1] 'UK Hab' methodology. A habitat Condition Assessment Survey was also undertaken, based on the criteria set out within the Statutory Biodiversity Metric technical supplements.

1.3. Basis of Reporting

1.3.1. The following Biodiversity Net Gain Assessment is intended to establish whether the proposals are able to deliver a biodiversity net gain, and what that percentage net gain would be, utilising the 'Statutory Biodiversity Metric Calculation Tool' (SBMCT). This is the nationally recognised tool for demonstrating quantifiable net gains for biodiversity. This report accompanies the SBMCT, providing a summary of the results of the SBMCT and clarifies the choice of habitat definitions, distinctiveness, habitat conditions and temporal factors (where appropriate).

1.4. Lead Surveyor and Author's Experience

1.4.1. The lead surveyor and author is Jon Byrd. Jon is a Chartered Ecologist (CEcol) and Full Member of the Chartered Institute of Ecology and Environmental Management (MCIEEM), with over 16 years of relevant experience within a consultancy setting. Jonathan has been undertaking and advising on Biodiversity Net Gain Assessments since 2017, pre-dating the release of the DEFRA Biodiversity Metrics, and is suitably authoritative to assess these proposals. As such, the findings and assessments detailed within the Biodiversity Net Gain Assessment can be relied upon to inform the planning application.

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1 UKHab Ltd (2023). *UK Habitat Classification Version 2.0 (at https://www.ukhab.org)*

2. Methodology

2.1. Habitat Survey

2.1.1. A habitat survey was carried out on the 5th February 2025, based on the UK Habitat Classification methodology, whereby habitat types present were noted and mapped, together with an assessment of the general 'ecological value' of each habitat. A detailed species list was compiled for each habitat type, and from this the botanical composition of the site was classified into areas of similar community types. Species identification is based on the Botanical Society for the British Isles (BSBI) Checklist. This methodology provides an initial appraisal of the basic habitat types present and is translated into corresponding UK Habitat classifications detailed within the Statutory Biodiversity Metric.

2.2. Condition Assessment Survey

2.2.1. In order to inform the coding of the Statutory Biodiversity Metric, each of the identified relevant habitats was subject to a Condition Assessment Survey on the 5th February 2025.

2.2.2. A range of guidance documents have been utilised to inform the condition assessment of existing habitats within the site as well as the condition of habitats following completion of development, with 'The Statutory Biodiversity Metric – User Guide' (August 2024), 'The Statutory Biodiversity Metric – Technical Annex 1: Condition Assessment Sheets and Methodology' (August 2024) and UK Hab 'The UK Habitat Classification – Version 2.0' (2023) being the primary guidance documents.

2.2.3. This approach enables an objective assessment of the baseline conditions for each habitat present, and represents the most robust and replicable method to establish the ecological baseline for Biodiversity Net Gain purposes.

2.3. Survey Constraints

2.3.1. All the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during different seasons. The habitat survey was undertaken outside the optimal general botanical survey period, albeit within an entirely acceptable time of year for the type of habitats present and all assessment criteria were able to be assessed / distinguished. As such, it is considered that the habitat classification and condition assessment data underpinning the metric calculations is reliable and suitably robust to inform the assessment.

2.4. Biodiversity Metric Calculation

2.4.1. Statutory Biodiversity Metric version / release date: 23/07/2024.

2.4.2. All identified habitats within the site are measured using QGIS software, in order to accurately establish their extents (see Plan 25409-BNGA1). The identified habitats, and their extents, are coded into the SBMCT, alongside their condition assessment information and other spatial / locally strategic information. This information generates the baseline number of 'biodiversity units' present within a site. The extents of proposed habitats are measured from the relevant masterplan layout / details (see Plan 25409-BNGA2) and input to the SBMCT, alongside the realistically achievable conditions that are targeted for each habitat type. Additional spatial / locally strategic information is also input, which enables the number of proposed 'biodiversity units' to be established.

2.4.3. In order to understand the 'net' biodiversity gains or losses of a project, the proposed biodiversity units are subtracted from the baseline conditions, from which a percentage change in biodiversity can be calculated. In calculating the biodiversity net gains that can be delivered under the proposals, the mitigation hierarchy has been followed at all times.

2.4.4. This approach aims to ensure that, in the first instance, potential ecological harm is avoided. Where this is not always possible, such harm must be reduced and only then compensated for as a last resort, when other potential design interventions have been exhausted.

3. Results

3.1. Baseline – Irreplaceable Habitats

3.1.1. None of the habitats present within the site are classified or characterised as representing an 'irreplaceable habitat'. As such, this assessment criterion is not considered further as part of the assessment.

3.2. Baseline – 'Habitat Degradation'

3.2.1. Construction activities were noted to have taken place at the site, comprising the demolition of a warehouse / commercial structure, with rubble / debris remaining in piles across the site. Parts of these areas have begun to vegetate, and are now assessed to be consistent with vacant / derelict land, rather than developed land; sealed surface. As such, these habitats would not previously have 'scored' any baseline biodiversity units, but now do so in places. On this basis, this activity is not considered to represent habitat degradation, as the baseline units present within the on-site baseline is considered to have increased as a result of this activity. No vegetated habitats appear to have been impacted by the works undertaken.

3.3. Baseline – Site Habitat Baseline

3.3.1. The status of existing habitat areas, and a summary of their current conditions, are detailed at Table 3.1 below.

Table 3.1 Baseline habitat conditions.

Ref	Habitat	Condition	Condition Assessment	Description
1	Urban: Developed land; sealed surface	N/A - Other	SBMCT assigns the condition data for this habitat.	Areas of hardstanding comprising concrete at the east and northwest of the site.
2	Urban: Vacant or derelict land	Poor	**Criteria Passed** C **Criteria Failed** A, B	Areas of vacant and derelict land spanning the majority of the site with encroaching ruderals including Broad-leaved Dock *Rumex obtusifolius*, Yorkshire-fog *Holcus lanatus*, Mugwort *Artemisia vulgaris*, Great Willowherb *Epilobium hirsutum*, Soft-rush *Juncus effusus*, Annual Meadow-grass *Poa annua*, Common Nettle *Urtica dioica*, Creeping Buttercup *Ranunculus repens*, Cow Parsley *Anthriscus sylvestris*, Butterfly-bush *Buddleja davidii*.
3	Individual trees: Urban tree	Poor	Passing 2 of the condition assessment criteria	Four existing trees comprising small size class. All trees are understood to be retained under the proposals, albeit have been calculated as lost because they would be enclosed

				within a new private residential curtilage.
4	Individual trees: Urban tree	Moderate	Passing 3 of the condition assessment criteria	One existing tree comprising medium size class. The tree is understood to be retained under the proposals, albeit has been calculated as lost because it would be enclosed within a new private residential curtilage.

3.3.2. Based on the extent of habitats within the site, and their current condition, existing habitats are assessed to provide **0.54** biodiversity units.

3.4. Proposed / Post-intervention – Site Habitat Creation

3.4.1. Details of proposed and habitat creation areas, and a summary of their targeted conditions, are detailed at Table 3.2 below.

Table 3.2 Proposed habitat details.

Ref	Habitat	Condition	Condition Assessment	Description
1	Urban: Developed land; sealed surface	N/A-Other	SBMCT assigns the condition data for this habitat.	Proposed hardstanding areas.
2	Urban: Developed land; sealed surface	N/A-Other	SBMCT assigns the condition data for this habitat.	Proposed buildings / structures.
3	Urban: Vegetated garden	Condition Assessment N/A	Condition Assessment N/A	Proposed new private gardens.

3.4.2. Based on the extent of proposed habitats within the site, and their targeted conditions, post-intervention habitat areas are assessed to provide **0.24** biodiversity units.

3.5. Baseline – On-Site Hedge Baseline

3.5.1. No hedgerows are present within the site. As such, this habitat category is not assessed further.

3.6. Baseline – Rivers

3.6.1. No qualifying rivers or ditches are present within the site. As such, this habitat category is not assessed further.

3.7. Trading

3.7.1. Under the Statutory Biodiversity Metric, 'Trading Rules' are assessed as not being 'satisfied' under the current proposals, and an overall reduction in 'medium' distinctiveness individual tree habitats is predicted. This is not unexpected, given the overall reduction in habitat area Biodiversity Units under the proposals, which stems from the calculated loss (despite their retention) of existing individual trees.

3.7.2. As such, in order to satisfy the Trading Rules, the off-site solution will be required to deliver a net gain in any medium distinctiveness individual trees, or any area habitat type of higher distinctiveness.

3.8. Evaluation

3.8.1. A summary of the net biodiversity gains or losses resulting from the proposals is detailed at Table 3.3 below.

Table 3.3 Summary of Biodiversity Net Gains or Losses.

	Biodiversity Unit Change	Percentage Change
Habitats	-0.30	-55.44%
Hedgerows	N/A	
Rivers	N/A	

3.8.2. Additional measures proposed under the scheme including faunal enhancements such as bat roost boxes and bird nest boxes, log piles, hedgehog domes and connectivity features for hedgehogs, will bring forward considerable additional biodiversity net gains that are unable to be reflected within the Statutory Biodiversity Metric. Nonetheless, such measures are anticipated to contribute considerably to the biodiversity 'value' of the site and should be taken into account when considering the benefits of the proposals and the genuine faunal biodiversity net gains that these features represent.

3.8.3. In order to achieve a >10% Biodiversity Net Gain in habitat units, that satisfies Trading Rules, an additional **0.35** biodiversity units would be required. In order to address the Trading Rules deficit, 0.20 Individual Tree units, or any area habitat type of higher than 'medium' distinctiveness and 0.10 units any area habitat type of higher than 'low' distinctiveness.

3.8.4. The current predicted deficit in Biodiversity Units and Trading Rules could be readily addressed in a number of ways, including securing additional land for Biodiversity Enhancement by the Applicant, by purchasing / securing off-site Biodiversity Units from a third-party / off-site unit provider, or by purchasing Statutory Biodiversity Credits from the government scheme.

3.8.5. At this stage, the proposals are assessed as unable to deliver >10% Biodiversity Net Gain within the application site's redline boundary. Three readily achievable approaches to off-setting the proposals (securing additional land and managing / enhancing it, or purchasing off-site available Biodiversity Units or Credits), in order to achieve the required level of net gain are provided above, which could be readily secured via a suitably worded planning condition.

4. Conclusions

4.1 Allied Ecology has undertaken a Biodiversity Net Gain Assessment of the proposals utilising the Statutory Biodiversity Metric. This assessment has established that the on-site proposals are unable to deliver >10% net biodiversity gains in habitat areas and provides proportionate, achievable recommendations should demonstrating a 10% gain ultimately be required.

Enclosed

Plan 25409-BNGA1 – Baseline Habitats
Plan 25409-BNGA2 – Proposed Habitats
Appendix 25409-1 – Statutory Biodiversity Metric, Headline Results Extract
Appendix 25409-2 – Photographs
Statutory Biodiversity Metric Excel File – **Available Upon Request**
Statutory Condition Assessments – **Available Upon Request**



Key:

- Site Boundary
- Individual trees: Urban tree (4 x small, poor condition) (0.0163ha)
- Individual trees: Urban tree (1 x medium, moderate condition) (0.0163ha)
- Urban: Developed land; sealed surface (0.095ha)
- Urban: Vacant or derelict land (0.1699ha)

High Street, Stilton, PE7 3RD

Baseline Habitats

25409 - BNGA1

February 2025

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Key:

Site Boundary

Proposed habitat creation

Urban: Developed land; sealed surface (0.0771ha)

Urban: Developed land; sealed surface (0.0306ha)

Urban: Vegetated garden (0.1236ha)

Existing habitats to be retained

Urban: Developed land; sealed surface (0.0336ha)

High Street, Stilton, PE7 3RD

Proposed Habitats

25409 - BNGA2

February 2025

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High Street, Silton

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Headline Results

Scroll down for final results ⚠

On-site baseline	*Habitat units*	0.54		
	Hedgerow units	0.00		
	Watercourse units	0.00		
On-site post-intervention (including habitat retention, creation & enhancement)	*Habitat units*	0.24		
	Hedgerow units	0.00		
	Watercourse units	0.00		
On-site net change (units & percentage)	*Habitat units*	-0.30	-55.44%	On-site net gain is less than target set ⚠
	Hedgerow units	0.00	0.00%	
	Watercourse units	0.00	0.00%	
Off-site baseline	*Habitat units*	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site post-intervention (including habitat retention, creation & enhancement)	*Habitat units*	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Off-site net change (units & percentage)	*Habitat units*	0.00	0.00%	
	Hedgerow units	0.00	0.00%	
	Watercourse units	0.00	0.00%	
Combined net unit change (including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-0.30		
	Hedgerow units	0.00		
	Watercourse units	0.00		
Spatial risk multiplier (SRM) deductions	*Habitat units*	0.00		
	Hedgerow units	0.00		
	Watercourse units	0.00		

FINAL RESULTS

Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-0.30	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Total net % change (including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-55.44%	Total net gain achieved is less than target set ▲
	Hedgerow units	0.00%	
	Watercourse units	0.00%	
Trading rules satisfied?	No - Check Trading Summaries ▲		

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	0.54	0.59	0.36	
Hedgerow units	10.00%	0.00	0.00	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 ✓

Input errors/rule breaks present in metric ▲



Photo 1. Vacant / derelict land at the northeast of the site



Photo 2. Vacant or derelict land with ruderals encroaching



Photo 3. Area of hardstanding



Photo 4. Vacant / derelict land at the northwest of the site

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