Biodiversity Net Gain Assessment Report

Former Car Showroom
Duddery Hill
Haverhill
Suffolk

Document date: 30th September 2022

Document ref: 4970E/22/01

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CONTENTS

1 INTRODUCTION

1.1 Instruction

1.1.1 PJC Consultancy Ltd was commissioned by UK Storage Consultancy to provide a Biodiversity Net Gain (BNG) Assessment report in relation to the proposed development at the former car showroom at Duddery Hill, Haverhill, West Suffolk (hereafter referred to as the 'Site').

1.1.2 This BNG Assessment report should be read in conjunction with the initial preliminary ecological appraisal (PEA) report (PJC Consultancy, 2022) (Report ref: 4969E/22).

1.2 Site Description

1.2.1 The Site is located immediately south of Duddery Hill, centrally located within the town of Haverhill, West Suffolk (OS Grid Reference: TL 67137 45039). The Site is located within a relatively urban environment surrounded on all aspects by residential and commercial development. The location of the Site within its environs is presented in Appendix I.

1.3 Proposals

1.3.1 The current proposal is for the demolition of the existing car showroom and construction of a large multi-storey commercial facility.

1.4 Document Objectives

1.4.1 The UK government's 25-year environment plan is focused on achieving Biodiversity Net Gain through development and the new Environment Bill will mandate a measurable 10% Biodiversity Net Gain for most new developments in England. Furthermore, the National Planning Policy Framework (2021) sets out the Government's planning policies for England and places a responsibility on local planning authorities to identify and pursue opportunities for securing measurable gains for biodiversity when determining planning applications, likely through planning policies and decisions.

1.4.2 Biodiversity Net Gain is essentially an approach to development that leaves biodiversity in a better state than before.

1.4.3 Where a development has an impact on biodiversity it encourages developers to provide an increase in appropriate natural habitat and ecological features over and above that being affected in such a way it is hoped that the current loss of biodiversity through development will be halted and ecological networks can be restored.

1.4.4 Biodiversity net gain still relies on the application of the mitigation hierarchy to avoid and mitigate for biodiversity losses. Compensation for losses that cannot be avoided should only be considered as a last resort. In the first instance, compensation for losses should be carried out within the development footprint. If this is not possible or does not generate the 10% biodiversity net gain, then it may be necessary to offset losses by compensation measures elsewhere.

1.4.5 This Biodiversity Net Gain assessment aims to:

- Establish the number of 'biodiversity units' generated by the Site (the ecological baseline) within the proposed development boundary (hereafter referred to as the 'Site');
- Establish the number of 'biodiversity units' lost as part of the proposed development;
- Establish the number of 'biodiversity units' gained through habitat creation and/or enhancement measures as part of the proposed development based on current detailed sign information; and
- Ascertain whether the proposed development will result in an overall net loss, no net loss or net gain in biodiversity value.

2 METHODOLOGY

2.1 Biodiversity Unit Calculation: Pre-Development (Baseline)

2.1.1 The total number of number of 'habitat units' and 'hedgerow units' (hereafter collectively referred to as 'biodiversity units') generated by the Site pre-development (the ecological baseline) was calculated for all area-based habitats (habitat units) and linear-based habitats (hedgerow units) within the Site, which accounts for the area/length, distinctiveness, condition, connectivity and strategic significance of each habitat parcel recorded. The ecological baseline was calculated using the DEFRA 'Biodiversity Metric 3.1'. It should be noted that at the time of undertaking this assessment, the 'DEFRA Biodiversity Metric 3.1' was still in its 'beta' development stage.

2.1.2 The 'Small Sites Metric' is a simplified version of the 'Biodiversity Metric 3.1'. Such sites are defined (for the purposes of this Small Sites Metric) as small sites where BOTH of the following criteria are met:

- Development sites where;
    - For residential developments the number of dwellings to be provided is between one and nine inclusive on a site having an area of less than one hectare.
    - Where the number of dwellings to be provided is not known the site area is less than 0.5 hectares.
- For all other development types where the site area is less than 0.5hectares or less than 5,000sqm
    - Where there is no priority habitat present within the development area (excluding hedgerows and arable margins).

2.1.3 The Site is approximately 0.4ha in size and no priority habitats were identified within the Site as part of the extended phase 1 habitat survey.

2.1.4 Given the above the Site qualifies for use of the 'Small Sites Metric'.

2.1.5 It should be noted that an assessment of the distinctiveness and condition of each habitat parcel recorded as forming the ecological baseline (i.e. pre-development conditions) is not required as part of the 'Small Sites Metric'.

2.1.6 The habitat type and area/length of each habitat parcel was informed from habitat data collected as part of the initial extended phase 1 habitat survey undertaken on 26th August 2022 (see paragraph 3.2 above).

2.1.7 In accordance with recognised good practice principles, the 'Small Sites Metric' excludes protected and irreplaceable habitats (i.e. ancient woodland, ancient and veteran trees, blanket bog, sand dunes, salt marsh and lowland fen).

2.1.8 The 'Small Sites Metric' also accounts for various multipliers such as strategic significance. Strategic significance in the 'Small Sites Metric' considers the importance of each habitat on a landscape scale, for example whether habitats are situated 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 conservation objectives, such as Nature Recovery Areas/Networks, Biodiversity Opportunity Areas, local biodiversity actions plans and green infrastructure strategies. In summary, proposed developments within areas of strategic significance are assigned a higher connectivity band and corresponding strategic position multiplier than proposed developments that are not situated within areas of strategic significance.

2.1.9 Baseline and proposed habitat areas were measured as distinct habitat parcels. Baseline habitat parcels were measured using habitat mapping, aerial imagery and proposed plans overlain in AutoCAD and GIS software.

2.2 Biodiversity Unit Calculation: Post-Development

2.2.1 The total number of biodiversity units of the Site post-development was calculated using the Proposed Site Plan (Drawing No: 11A) (Roger Mears Architects LLP, 2022) as well as a planting specification (communicated via informal email correspondence (dated 22nd September 2022).

2.2.2 The area/length retained and enhanced of each area-based and linear-based habitat parcel previously identified as part of the ecological baseline calculation was inputted into the DEFRA Biodiversity Metric 3.1. The areas retained and enhanced is defined as the following:

- Area retained: Area of each habitat parcel kept on the Site and protected throughout any development or landscaping process and featuring in final detailed designs;
- Area enhanced: Area of each habitat parcel kept on the Site throughout any development or landscaping process but enhanced as part of the final detailed designs; and
- Area created: Area of each new habitat parcel created as part of the development or landscaping process and featuring in final detailed designs.

2.3 Limitations

2.3.1 The total number of biodiversity units generated by the Site pre-development has been informed by data collected as part of the extended phase 1 habitat survey and aerial imagery. However, the ecological value of the Site post-development (number of area-based habitat units and linear-based habitat units post-development) has been informed by the design information that was available at the time. As such, the assessment is based on a number of important assumptions. This report aims to make any such assumptions explicit so that they can be reviewed or updated as appropriate. Given the various sources of information used and assessment/measurement tools used to inform these calculations, it is possible that minor discrepancies exist, particularly between the size and length of the baseline habitats and post-development habitats. However, any discrepancies present are not anticipated to significantly influence the outcome of the various calculations and the overall BNG assessment.

2.3.2 This biodiversity net gain assessment report assumes that a landscape and ecological management plan (LEMP) (or similar document), will be prepared setting out a long-term strategy (minimum of 30 years), detailing how all habitat mitigation, compensation and enhancement measures (including habitat creation, enhancement and succession initiatives) used to inform this biodiversity net gain assessment will be delivered through initial landscape works and long-term future management and monitoring of the development site and any relevant off-site areas.

2.3.3 In addition to aiming to achieve BNG within developments, developers must implement avoidance, mitigation, compensation and/or enhancement measures required to prevent harm to legally protected species (such as reptiles and nesting birds). Achieving BNG does not override the legal protection of these species and their habitats. Further information about avoidance, mitigation, compensation and/or enhancement measures required, are included in the Preliminary Ecological Appraisal (PJC Consultancy, 2022).

3 BASELINE CONDITIONS

3.1 Biodiversity Unit Calculation: Pre-Development (Baseline)

Irreplaceable Habitats

3.1.1 No irreplaceable habitat types were recorded within the Site as part of the desk study.

Area Based Habitats

3.1.2 A total of three semi-natural and artificial broad area-based habitat types were recorded within the Site during the extended phase 1 habitat survey. A description of the habitat types and classification are presented in Table 1 below.

Table 1: Area-based habitats pre-development.

Habitat ID	JNCC Phase 1 Habitat Type	UK Habs Classification	Description
1	Buildings and hardstanding	Developed land; sealed surface	The Site comprised a single commercial building as well as areas of hardstanding comprising tarmacadam parking areas and access.
2	Poor semi-improved grassland	Improved grassland	Narrow linear belts of poor semi-improved grassland were recorded along the eastern and western Site boundaries.

3.1.3 The total number of area-based habitat units generated pre-development (ecological baseline) is presented in Table 2 below.

Table 2: Ecological Baseline: Total number of 'area-based habitat units' generated by the Site pre-development.

Habitat ID	Strategic Significance	Area (m^2)	Habitat Units
1	Area not in local strategy	3700	0
2	Area not in local strategy	300	0.12
	TOTAL	**4000**	**0.12**

3.1.4 Overall, pre-development the Site generated a total of 0.12 area-based habitat units.

Linear-Based Habitats

3.1.5 A single broad linear-based habitat type was recorded within the Site during the extended phase 1 habitat survey. A description of the habitat type and classification is presented in Table 3 below.

Table 3: Linear--based habitat condition assessment.

Habitat ID	JNCC Phase 1 Habitat Type	UK Habs Classification	Description
1	Hedgerow with trees	Native Species-poor Hedgerow	A native dense hedgerow indicating regular hedgerow management was recorded along the western Site boundary.

3.1.6 The total number of linear-based habitat units generated pre-development (ecological baseline) is presented in Table 4 below.

Table 4: Ecological Baseline: Total number of 'linear-based habitat units' generated by the Site pre-development.

Habitat ID	Strategic Significance	Length (m)	Habitat Units

1	Area not in local strategy	32	0.2560

3.2 Biodiversity Unit Calculation: Post-Development

Area Based Habitats

3.2.1 A total of four semi-natural and artificial broad area-based habitat types are proposed within the Site post-development. A description of the habitat types and classification are presented in Table 4 below.

Table 4: Area-based habitats post-development.

Habitat ID	JNCC Phase 1 Habitat Type	UK Habs Classification	Description
1	Buildings and hardstanding	Developed land; sealed surface	Development proposals include the construction of a commercial storage facility as well as parking areas and access.
2	Introduced shrub	Introduced shrub	Soft landscaping proposals include the planting of non-native shrub and perennial species including *Helleborus foetidus*, *Calamintha nepeta* and *Veronica spicata.*
3	Amenity grassland	Modified grassland	Soft landscaping proposals include the creation of amenity grassland comprising a standard lawn seed mix.
4	Scattered broadleaved tree	Urban tree	Soft landscaping proposals include the planting of 13 native broadleaved trees including *Prunus padus*, *Acer campestre* and *Sorbus aria*.

3.2.2 The total number of area-based habitat units expected to be generated as a result of habitat creation measures post-development, is presented in Table 5 below.

Table 5: Total number of 'area-based habitat units' generated through habitat creation measures by the Site post-development.

Habitat ID	Targeted Condition	Strategic Significance	Area (m^2)	Habitat Units
1	Condition Assessment N/A	Area not in local strategy	3,400	0
2	Poor	Area not in local strategy	100	0.0193
3	Moderate	Area not in local strategy	500	0.1734
4	Moderate	Area not in local strategy	59	0.0180
		TOTAL	**4000**	**0.2107**

Linear Based Habitats

3.2.3 The existing hedgerow is anticipated to be retained in its entirely post-development.

3.2.4 Furthermore, a single semi-natural linear-based habitat type is proposed within the Site post-development.

3.2.5 A description of the habitat type and classification is presented in Table 6 below.

Table 6: Area-based habitats post-development.

Habitat ID	JNCC Phase 1 Habitat Type	UK Habs Classification	Description
1	Native species-rich hedgerow	Native species-rich hedgerow	Development proposals include the planting of a native species rich hedgerow continuing from the existing hedgerow along the western Site boundary. Approximately five woody plants will be planted per metre of hedgerow, in double staggered rows. The hedgerow will be managed on an annual rotation, whereby half of each hedgerow is cut in any one year. This will encourage a diverse structure to produce both a wide and dense hedgerow

3.2.6 The total number of area-based habitat units expected to be generated post-development, is presented in Table 5 below.

Table 5: Total number of 'linear-based habitat units' generated by the Site post-development.

Habitat ID	Targeted Condition	Strategic Significance	Length (m)	Habitat Units
1	Moderate	Area not in local strategy	*40*	0.2678

4 DISCUSSION

4.1.1 Pre-development the Site generates a total number of 0.12 habitat units and 0.2560 hedgerow units.

4.1.2 Post-development the Site generates a total number of 0.2107 habitat units and 0.5238 hedgerow units.

4.1.3 This represents a total net-gain of 0.907 habitat units across the Site which equates to a net % change of +75.59% in habitat units, as well as a total net-gain of 0.2678 hedgerow units across the Site which equates to a net % change of 104.6% in hedgerow units.

4.1.4 Overall the proposed development is therefore anticipated to deliver a minimum 10% biodiversity net gain.

5 REFERENCES

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