Huddersfield Student Scheme

Biodiversity Impact Assessment

2023

RACHEL HACKING ECOLOGY

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Project Title	Huddersfield Student Scheme
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Executive Summary

The client is proposing commercial renovation of the high-rise building formally known as Crown House, hereafter referred to as the ‘site’. This report describes the ecological features of the site and its surroundings and assesses the potential impacts of the development on the ecological interest. Recommendations are provided so that the development is compliant with biodiversity policy and legislation.

Biodiversity Net Gain Calculation

The site is situated within an urban setting in the middle of Huddersfield town centre and has a low level of ecological interest. The site consists of sealed surfaces and buildings, Ecological features include a small patch of amenity-managed grassland with scattered trees, and a raised bed of introduced shrubs. Post-development habitats are predicted to provide a net gain on site which include the retention of all habitats and the inclusion of a green roof to be planted on the roof of the high-rise building.

1. Introduction

1.1 Project Brief

1.1.1 Rachel Hacking Ecology Limited was commissioned in 2023 by Abode Asset Management Limited to carry out an Ecological Appraisal at Huddersfield Student Scheme, former Crown House, Southgate in Huddersfield (O.S. grid reference: SE 14732 16877 – see Figure 1).

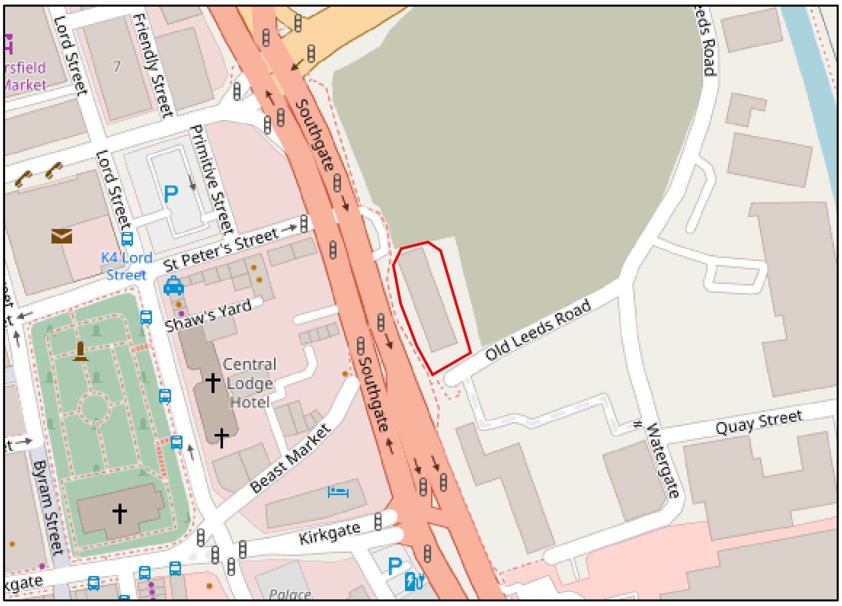

Figure 1. Map showing the location of the site courtesy of © OpenStreetMap Contributors

1.1.2 The proposed development site is a high-rise building surrounded by sealed surfaces and shrubberies with scattered trees. This site is situated in an urban setting at Huddersfield town centre, surrounded by commercial and residential properties and associated infrastructure.

Description of Development

1.1.3 The site will be the subject of a planning application for the renovation of the high-rise building, new landscaping and parking areas.

1.2 Scope of Work

1.2.1 The Client commissioned Rachel Hacking Ecology to carry out the following works: (omit as required)

- Calculate the baseline and post-development biodiversity units

1.3 Site Visit Information

Surveyor Details

1.3.1 Joe Cooper BSc (Hons), MRes, visited the site on 2nd February 2023. To carry out the Extended Phase 1 & Daytime Bat Surveys which are detailed within a separate report[1].

1.4 Personnel and Timing

Surveyor Details

1.4.1 Joe Cooper BSc (Hons), MRes carried out the calculations and assessment in March 2023. Joe is an experienced ecologist and trained in biodiversity impact assessment.

[1] Extended Phase 1 & Daytime Bat Survey - Huddersfield Student Scheme, Southgate, Huddersfield 2023

2. Methods

2.1 Biodiversity Net Gain

2.1.1 During the site walkover the ecological condition of each habitat was assessed in accordance with the Natural England (2022) guidelines[2]. Habitat types recorded and mapped during the field survey were converted from the JNCC system to the UK Habitat Classification system[3].

2.1.2 Habitat data including type, area (or length), condition and strategic location were uploaded to the Defra Biodiversity Metric Calculator (version 3.0) spreadsheet to determine the baseline value of the site. The extent of any habitats to be retained or enhanced was also entered into baseline worksheets.

2.1.3 The post-development masterplan was interrogated to determine areas of hard standing, buildings, and associated infrastructure. New, retained and enhanced habitats were classified and allocated a target condition, based on habitat type, location and management input. This information was uploaded to the metric spreadsheet to obtain a post-development value.

2.1.4 The pre- and post-development values were compared to determine whether the yield of biodiversity units achieved a deficit or gain.

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[2] Panks, S. White, N., Newsome, A. et al. (2022). *Biodiversity metric 3.1: Auditing and accounting for biodiversity – User Guide*. Natural England.

[3] Butcher, B., Carey, P., et al. (2020). UK Habitat Classification – Habitat Definitions V1.1. at http://UKhab.org

3. Results

3.1 Baseline Habitats

3.1.1 The baseline habitat units of the site are calculated to be 1.57 (see Appendix 3). 0.32 habitat units are being retained as part of the proposals.

Grassland – Modified Grassland (Amenity Grassland)

3.1.2 This habitat dominates much of the redline boundary. It has a total measurement of 0.0126ha. The tall ruderal herb habitat failed two assessment criteria (see Table 1). This habitat is in assumed poor condition with low distinctiveness and of low strategic significance. It provides 0.03 habitat units.

Table 1 showing the condition assessment of the Grassland – Modified Grassland														
Species poor has been assumed, inaccessible at the time of the survey. The habitat is being retained.														
The scores below show pass 'P' or fail 'F' for each criterion or 'NA' for any irrelevant criteria numbers where condition sheet contains fewer than 13 criteria.														
Criterion	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	TOTAL
Result	P	F	F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2
Are any criteria non-negotiable? (Y/N) If Yes are they passed?			Condition 2 and 3 are non-negotiable to achieve a good condition.				Condition (Good/Moderate /Poor):			Poor				

Urban – Urban Tree (Scattered Trees)

3.1.3 Four small, scattered trees are located within the northern band of amenity grassland. The collective area of this habitat is assessed as being 0.1465ha using the Urban Tree Helper tool within the metric. The scattered tree habitat is assessed as being 'moderate' condition as the trees pass 3 of the 6 assessment criteria (see Table 2). This habitat is medium distinctiveness and is of low strategic significance. It provides 1.29 habitat units.

Table 2 Showing the condition assessment of the Urban Trees														
Species unknown as these were inaccessible at the time of the survey. The habitat is being retained.														
The scores below show pass 'P' or fail 'F' for each criterion or 'NA' for any irrelevant criteria numbers where condition sheet contains fewer than 13 criteria.														
Criterion	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	TOTAL
Result	F	P	F	P	F	P	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3
Are any criteria non-negotiable? (Y/N) If Yes are they passed?		No					Condition (Good/Moderate /Poor):			Moderate				

Urban – Introduced Shrub

3.1.4 This habitat is located on to the west of the high-rise building adorning the entrance and totalling 0.1263ha. The DEFRA 3.1 Metric automatically assigns this habitat a low distinctiveness score and does not require a condition assessment. This habitat scores 0.25 habitat units.

Urban - Developed land; Sealed Surface A

3.1.5 The high-rise building formally known as the Crown House sits in the middle of the site and totals 0.1154ha. The DEFRA 3.1 Metric automatically assigns this habitat a very low distinctiveness score and does not require a condition assessment. This habitat scores 0.0 habitat units.

Urban - Developed land; Sealed Surface B

3.1.6 Hardstanding surrounding the high-rise building, including access and walkways totals 0.0464ha. The DEFRA 3.1 Metric automatically assigns this habitat a very low distinctiveness score and does not require a condition assessment. This habitat scores 0.0 habitat units.

Baseline Hedgerow Units

3.1.7 There are no hedgerow habitats on site, therefore no hedgerow units exist.

Baseline River Units

3.1.8 There are no aquatic habitats on site, therefore no river units exist.

3.2 Proposed Habitats – Post Development

Retained Habitats

3.2.1 All habitats on site are being retained as part of the development equate to 0.32ha and provide 0.45 habitat units (1.57 habitat units including Scattered Trees).

Created Habitat Units

Urban – Intensive Green Roof

3.2.2 A green roof will be provided on the lower roof of the high-rise building and will be planted with a combination of introduced shrubs, ornamental trees, perennials and grasses. This habitat will be managed as part of the development in perpetuity. It has a total measurement of 0.048ha and has a target condition of 'moderate' which will take 3 years to achieve. This habitat provides to 0.17 habitat units. (see Appendix 4).

Created Hedgerow Units

3.2.3 There are no hedgerow habitats to be created on site post-development, therefore no hedgerow units can be awarded.

4. Assessment

4.1 Biodiversity Net Gain

4.1.1 Kirklees Council Local Plan sets out the requirement for development to achieve ‘a minimum of 10% net gain in biodiversity is required’ and the policy also ‘provide net biodiversity gains through good design by incorporating biodiversity enhancements and habitat creation’. If the application of the Mitigation Hierarchy demonstrates that on-site delivery is not feasible or is insufficient to achieve a net gain and comply with the Kirklees LP requirements, it will be necessary to deliver off site projects, as a last resort option for development, utilising a financial agreement to improve the biodiversity value of an area of land off-site.

4.1.2 The baseline habitat units within the redline development are 0.42 (1.57 including trees).

4.1.3 For the proposed development to achieve an overall net gain for biodiversity it will be necessary to seek mitigation or compensation for any shortfall in units either by direct management of land by the applicant or the purchase of biodiversity units from a third party.

4.1.4 Scenario A is on-site mitigation, which will be required to achieve >0.157 units. If on-site mitigation is insufficient to deliver a post-development net gain for biodiversity, two other options are available:

4.1.5 Scenario B: the developer is unable to compensate all impacts on-site but is able to secure local compensatory habitat creation. This scenario is not modelled explicitly and would require making assumptions for what an individual development might look like.

4.1.6 Scenario C: the developer is unable to compensate on site and is unable to find local compensatory habitat in which to invest. Instead, they have to pay for their units through a biodiversity unit offsetting market. This could be The Environment Bank, or Kirklees Council.

5. Summary

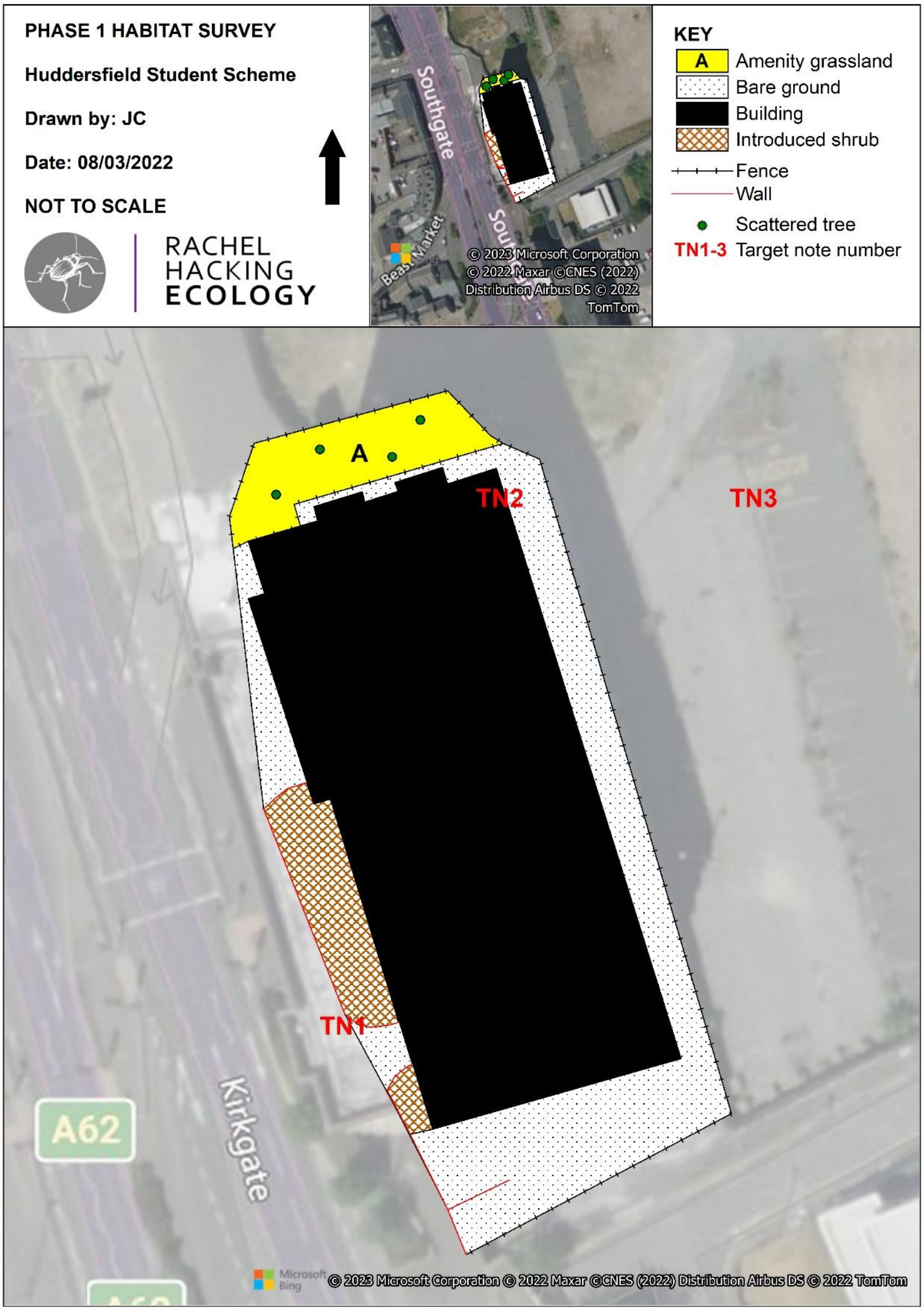
5.1 Habitat Units

5.1.1 The proposed development at the Huddersfield Student Scheme, formerly known as the Crown House, in its current site layout and delivering the proposed mitigation, is predicted to deliver 0.17 habitat units, which equates to a 11.01% net gain in habitat units.

5.1.2 The proposals will also include measures not quantified by the DEFRA 3.1 Metric, such as the installation of bat and bird boxes as well as insect hotels, bee bricks and brash piles on site where appropriate which will further increase the ecological gain of the site.

Appendix 1: Proposed Site Plan

Appendix 2: Phase 1 Habitat Survey Map



Appendix 3: Baseline Habitat Unit Calculation

Huddersfiekld Student Scheme

A-1 Site Habitat Baseline

Condense / Show Columns | Condense / Show Rows

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	Habitats and areas			Distinctiveness		Condition		Strategic significance			Suggested action to address habitat losses	Ecological baseline
Ref	Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic Significance multiplier		Total habitat units
1	Urban	Developed land; sealed surface	0.1154	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00
2	Urban	Developed land; sealed surface	0.0464	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00
3	Grassland	Modified grassland	0.0126	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.03
4	Urban	Introduced shrub	0.1263	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.25
5	Urban	Urban Tree	0.1465	Medium	4	Moderate	2	Location ecologically desirable but not in local strategy	Medium strategic	1.1	Same broad habitat or a higher distinctiveness habitat	1.29
6												
7												
8												
9												
		Total habitat area	0.45									1.57

Appendix 4: Created Habitat Unit Calculation

Huddersfiekld Student Scheme

A-2 Site Habitat Creation

Condense / Show Columns | Condense / Show Rows | Main Menu | Instructions

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Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness		Condition		Strategic significance			
			Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier	Standard time to target condition/year
Urban	Intensive green roof	0.048	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	3
	Total habitat area	0.05								
	Site Area (Excluding area of Urban trees and Green walls)	0.05								