

BIODIVERSITY IMPACT ASSESSMENT

SHAW LANE, CARLTON,
BARNSELY, SOUTH YORKSHIRE

REV. C

SEPTEMBER 2023



**RACHEL
HACKING
ECOLOGY**

Bowden Hall,
Bowden Lane,
Marple, Stockport
SK6 6ND
0161 465 8971

www.rachelhackingecology.co.uk
mail@rachelhackingecology.co.uk



CONTENTS

1.0 INTRODUCTION.....	3
2.0 METHODOLOGY.....	4
3.0 RESULTS	5
EXISTING HABITATS	5
PROPOSED POST DEVELOPMENT HABITATS	9
4.0 ADSESSMENT	11
5.0 SUMMARY.....	12
<i>APPENDIX A - PROPOSED LANDSCAPING COURTESY OF SPAWFORTHS</i>	
<i>APPENDIX B – PHASE 1 HABITAT SURVEY MAP</i>	
<i>APPENDIX C – BASELINE HABITAT UNIT CALCULATION</i>	
<i>APPENDIX D – CREATED HABITAT UNIT CALCULATION</i>	
<i>APPENDIX E – BASELINE HEDGEROW UNIT CALCULATION</i>	
<i>APPENDIX F – CREATED HEDGEROW UNIT CALCULATION</i>	

1.0 INTRODUCTION

Site Information

- 1.1 Rachel Hacking Ecology Limited was commissioned in 2022 by Network Space to carry out a Biodiversity Impact Assessment at Shaw Lane, Carlton, Barnsley. The site is situated on the north of Shaw Lane, in Carlton (O.S. grid reference: SE 37404 10325 – see Figure 1). The proposed development site currently comprises an Arable field with a band of tall ruderal herb on the site boundary.
- 1.2 A Biodiversity Impact Assessment is required to provide a measurement of the changes in biodiversity and demonstrate if the site will be in net gain or net loss as a result of the proposed development on site.



Figure 1 showing the redline boundary of the site

Description of Development

- 1.3 The site will be the subject of an outline planning application for a residential development on the site, with associated access, landscaping and parking.

Biodiversity in Planning

- 1.4 Biodiversity is a material consideration, and Local Planning Authorities (LPAs) have a requirement to consider biodiversity and protected species when determining planning applications. Section 15 of the National Planning Policy Framework (July 2021) gives specific reference to minimising the impacts of development on biodiversity. Local and Neighbourhood plans also provide guidance towards protecting and enhancing biodiversity, including priority habitats and notable species.

2.0 METHODOLOGY

Phase 1 Habitat Survey

- 2.1 A Phase 1 Habitat survey was undertaken to JNCC standards (JNCC, 2010). The site was walked, and each habitat was assigned a Phase 1 habitat category. Species lists were taken at locations of botanical interest. All botanical nomenclature follows Stace, 2019. The preliminary survey was carried out on the 6th July 2021 which updated a previous survey of the site in 2019. The survey was carried out by Kate Reed (Senior Ecologist).
- 2.2 There were no constraints to the survey of the site. All habitats were accessible and all plants identifiable.

DEFRA Biodiversity Metric 3.1 Calculation

- 2.3 Biodiversity net gain was calculated using Biodiversity Metric 3.1 Auditing and accounting for biodiversity Calculation tool.
 - The onsite habitat baseline calculations are measured on MapInfo GIS software using the Phase 1 Habitat map.
 - The Phase 1 habitat classifications are translated to UK Habitat Regulations using the translation tool in the Biodiversity Metric.
 - All habitat conditions are based on the condition assessments listed in the habitat condition sheets excel document.
 - The strategic significance is determined by deciding if the habitat is desirable within the location and seeing if it is identified within a local strategy.
 - The areas to be retained or enhanced habitats are calculated using the Proposed Landscaping Masterplan.
 - The site proposed habitats and associated scores are calculated using measurements and habitat information provided by DEP Landscape Architecture Ltd, as well as over-laying site plans onto the MapInfo GIS software and taking area measurements.
- 2.4 The change in biodiversity is calculated by subtracting the baseline unit values from the post-development values of the broad habitat types. This is combined with any off-site gains or losses to give a final Biodiversity Unit Value for the scheme.

Personnel and Timing

- 2.5 Kate Reed carried out the calculations and assessment in August 2022, based on the results of the aforementioned Phase 1 Habitat Surveys and the proposed landscape plans and areas provided by Spawforths (see Appendix A). Kate is an experienced ecologist and trained in biodiversity impact assessment.
- 2.6 Revisions of the Metric took place following comments received from the Planning Ecologist.

3.0 RESULTS

3.1 The following calculations are based on the landscape proposals and the Phase 1 Habitat map, located at Appendix A and B. The baseline habitats and their condition assessments are based on the Extended Phase 1 Habitat Survey of the site.

Existing Habitats

3.2 The current Baseline habitat units on site provide 20.22 Habitat units. See below for the condition assessment of each habitat and Appendix C for the full results of the Baseline Habitat units.

Baseline Habitat units

Arable

3.3 The dominant habitat on site is the arable wheat crop covering 7.11ha. This habitat is Cropland; Cereal Crop under UK Habitat Regulations. This is a habitat with low strategic significance, and the condition is assessed as N/A pre-set within the Metric. This habitat provides 14.22 habitat units to the site.

Ephemeral Short Perennial

3.4 Ephemeral short perennial is present on the site covering 0.061. This habitat is categorised as Sparsely Vegetated Land – Ruderal/Ephemeral under the UK Habitat Regulations. The ephemeral short perennial has been assessed using condition assessment sheet 21, Urban habitat types, and is assessed as having a poor condition as it passes 1 of the 3 core assessment criteria (See Table 1 below for the condition assessment). The ephemeral short perennial brings 0.12 habitat units to the site.

Table 1 Showing the condition assessment of the ephemeral short perennial														
The site access track is an area of ephemeral short perennial. Species here include Annual Meadow-grass <i>Poa annua</i> , Soft Brome <i>Bromus hordeaceus</i> , Perennial Rye-grass <i>Lolium perenne</i> , Creeping Bent <i>Agrostis stolonifera</i> , Creeping Buttercup <i>Ranunculus repens</i> , Wavy Bittercress <i>Cardamine flexuosa</i> .														
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	F	P	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	No						Condition (Good/Moderate /Poor):			Poor				

Bare Ground

3.5 The track on site is bare ground covering 0.021ha. This habitat is Urban; Artificial unvegetated, unsealed surface under UK Habitat Regulations. This is a habitat with very low strategic significance and distinctiveness, and the condition is assessed as N/A pre-set within the Metric. This habitat provides 0.00 habitat units to the site.

Tall Ruderal Herb

- 3.6 Tall Ruderal Herb is present on the site covering 0.358. This habitat is categorised as Sparsely Vegetated Land – Ruderal/Ephemeral under the UK Habitat Regulations. The tall ruderal herb has been assessed using condition assessment sheet 21, Urban habitat types, and is assessed as having a moderate condition as it passes 2 of the 3 core assessment criteria (See Table 2 below for the condition assessment). The tall ruderal herb brings 1.43 habitat units to the site.

Table 2 Showing the condition assessment of the tall ruderal herb														
The site boundaries are marked with a band of tall ruderal herb. Frequently occurring species include Rosebay Willowherb <i>Chamaenerion angustifolium</i> , False Oat-grass <i>Arrhenatherum elatius</i> , Cleavers <i>Galium aparine</i> , Barren Brome <i>Anisantha sterilis</i> , Creeping Thistle <i>Cirsium arvense</i> , Perennial Rye Grass <i>Lolium perenne</i> , Bramble <i>Rubus fruticosus</i> agg., Quaking grass <i>Briza media</i> and Common Nettle <i>Urtica dioica</i> . Less frequently occurring species include Cut-leaved Crane's-bill <i>Geranium dissectum</i> , Scarlet Pimpernel <i>Lysimachia tenella</i> , Mugwort <i>Artemisia vulgaris</i> , Yarrow <i>Achillea millefolium</i> , Colt's-foot <i>Tussilago farfara</i> and Hedge Woundwort <i>Stachys sylvatica</i> .														
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	P	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?			No				Condition (Good/Moderate /Poor):			Moderate				

Scattered Trees

- 3.7 12 Scattered trees (all small) are located along the site boundaries and within the pond. This habitat is categorised as Urban – Urban Tree under the UK Habitat Regulations. The collective area of this habitat is measured at 0.0488ha using the street tree calculator. The trees are assessed as having a moderate condition as it passes 1 of the 6 assessment criteria (See Table 3 below for the condition assessment). The scattered trees bring 4.29 habitat units to the site.

Table 3 Showing the condition assessment of the Scattered Trees														
A small number of semi-mature scattered trees occur on the site (see Photograph 8). Species include Ash <i>Fraxinus excelsior</i> , Willow <i>Salix</i> sp., Cherry <i>Prunus</i> sp. and Hawthorn <i>Crataegus monogyna</i> .														
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	P	F	F	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				

Open Water

- 3.8 A small pond is present on the site. This habitat is categorised as Lakes; Pond (non-priority habitat) under the UK Habitat Regulations. The collective area of this habitat is measured at 0.017ha. The pond has been assessed using condition assessment sheet 17, Pond habitat types, and is assessed as having a moderate condition as it passes 6 of the 9 assessment criteria for non-woodland ponds (See Table 4 below for the condition assessment). The pond brings 0.15 habitat units to the site.

Table 4 Showing the condition assessment of the pond														
The waterbody is shallow, is overgrown with tall ruderal vegetation, and it is heavily shaded by trees. Aquatic vegetation within the pond includes Yellow Iris <i>Iris pseudacorus</i> and Watercress <i>Nasturtium officinale</i> with Hemlock <i>Conium maculatum</i> , Teasel <i>Dipsacus fullonum</i> , Ferns, Yellow Vetch <i>Vicia</i> sp. and common Nettle <i>Urtica dioica</i> on the banks.														
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	F	P	P	P	P	P	P	F	N/A	N/A	N/A	N/A	6
Are any criteria non-negotiable? (Y/N) If Yes are they passed?			No				Condition (Good/Moderate /Poor):			Moderate				

Baseline Hedgerow Units

- 3.9 Four sections of hedgerows exist on the site providing 7.52 linear units. See Appendix E for the full assessment.
- 3.10 The hedgerows have been assessed using condition assessment sheet 8, Hedgerow habitat types.

Hedgerow 1: A Native hedgerow that is 0.18km along the western site boundary. The hedgerow is assessed as having a good condition as it fails 1 of the 8 condition assessment criteria and no more than 1 in each attribute group (see Table 5) and brings 1.19 linear units to the site.

Table 5 Showing the condition assessment of Hedgerow 1														
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	A1	A2	B1	B2	C1	C2	D1	D2	E1	E2	N/A	N/A	N/A	TOTAL
Result	7	P	P	P	P	F	P	P	N/A	N/A	N/A	N/A	N/A	7
Are any criteria non-negotiable? (Y/N) If Yes are they passed?			No				Condition (Good/Moderate /Poor):			Good				

Hedgerow 2: A Native hedgerow that is 0.22km long by the site entrance. The hedgerow is assessed as having a good condition as it fails 1 of the 8 condition assessment criteria and no more than 1 in each attribute group (see table 6). Hedgerow 2 brings 1.45 linear units to the site.

Table 6 Showing the condition assessment of Hedgerow 2														
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	A1	A2	B1	B2	C1	C2	D1	D2	E1	E2	N/A	N/A	N/A	TOTAL
Result	P	P	F	P	P	P	P	P	N/A	N/A	N/A	N/A	N/A	7
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	No						Condition (Good/Moderate /Poor):		Good					

Hedgerow 3: A Native hedgerow that is 0.24km long by the site entrance. The hedgerow is assessed as having a moderate condition as it fails 3 of the 8 condition assessment criteria and no more than 1 in each attribute group (see Table 7). The hedgerow brings 1.06 linear units to the site.

Table 7 Showing the condition assessment of Hedgerow 3														
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	A1	A2	B1	B2	C1	C2	D1	D2	E1	E2	N/A	N/A	N/A	TOTAL
Result	P	F	F	P	F	P	P	P	N/A	N/A	N/A	N/A	N/A	6
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	No						Condition (Good/Moderate /Poor):		Moderate					

Hedgerow 4: A Native hedgerow with an associated ditch that is 0.29km long on the site entrance. The hedgerow is assessed as having a good condition as it fails 2 of the 8 condition assessment criteria and no more than 1 in each attribute group (see Table 8). The hedgerow brings 3.83 linear units to the site.

Table 8 Showing the condition assessment of Hedgerow 4														
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	A1	A2	B1	B2	C1	C2	D1	D2	E1	E2	N/A	N/A	N/A	TOTAL
Result	P	P	F	P	P	F	P	P	N/A	N/A	N/A	N/A	N/A	6
Are any criteria non-negotiable? (Y/N) If Yes are they passed?	No						Condition (Good/Moderate /Poor):		Good					

Baseline River Units

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

Proposed Post Development Habitats

Retained and Enhanced Habitats

- 3.12 The scattered trees and boundary hedgerows on site will be retained as a part of the proposed plans, except for 0.0065km of Hedgerow 1 will be lost for the new proposed site access. Retaining 4.29 habitat units and 7.48 linear units.

Habitat Unit Creation

- 3.13 The proposed landscape plans for the site provide 22.33 Habitat units (including the retained habitats). See below for a description and proposed final condition of each habitat and Appendix D for the full results of the Baseline Habitat units.

Urban - Developed; Sealed Surface

- 3.14 The proposed hardstanding and buildings, calculated to be approximately 3.63ha which is Urban - Developed land; sealed surface in the UK Habitat Regulations. This is a habitat has a poor condition (pre-set within the calculator) and has no strategic importance or distinctiveness. The development land brings 0.0 habitat units to the site.

Urban – Vegetated Gardens

- 3.15 The vegetated gardens of the properties covers an area of 2.55ha, composed of amenity grassland and introduced shrub. This has a condition of N/A (preset within the metric) and brings 4.92 habitat units to the site.

Grassland – other neutral Grassland

- 3.16 Wildflower Grassland is proposed within the wider landscaping covering an area of 0.55ha. This habitat is Grassland – other neutral grassland in the UK Habitat Regulations. The proposed final condition is moderate, which will take 5 year to achieve, providing 4.05 habitat units.

Urban – Introduced Shrub

- 3.17 Introduced shrub beds in the wider site are proposed to be planted covering an area of 0.33ha. This habitat is Urban – Introduced Shrub in the UK Habitat Regulations. The proposed final condition is poor, as automatically input by the calculator, and will take 1 year to achieve, providing 0.64 habitat units.

Sustainable Urban drainage features

- 3.18 Dry attenuation basins are proposed within the wider site covering an area of 0.29ha. This habitat is Urban – sustainable urban drainage feature in the UK Habitat Regulations. The proposed final condition is poor, as automatically input by the calculator, and will take 1 year to achieve, providing 0.37 habitat units.

Native – Mixed Scrub

- 3.19 Native shrub planting is proposed within the scheme covering an area of 0.11ha. This habitat is Heathland and Scrub – Mixed Scrub in the UK Habitat Regulations. The proposed final condition is poor which will take 1 year to achieve, providing 0.47 habitat units.

Urban – Rain Garden

- 3.20 Rain gardens are proposed within the wider green spaces covering an area of 0.09ha. This habitat is Urban – Rain Garden in the UK Habitat Regulations. The proposed final condition is poor, and will take 1 year to achieve, providing 0.17 habitat units.

Urban – Urban Tree

- 3.21 Scattered trees are proposed within the gardens and wider green spaces on the site. 260 new trees planted as heavy standard, standard and whips will be included within the scheme covering 3.34ha (calculated using the urban tree helper within the metric). This habitat will have a proposed final condition of poor and will take 10 years to achieve, providing 10.29 habitat units.

Hedgerow Unit Creation

- 3.22 Hedgerows are proposed within the scheme. These comprise 0.19km of Native hedgerow and 0.07km of ornamental hedgerow. The proposed final condition of the native hedgerow is moderate to bring it in line with the existing hedgerows on site, this will take 5 years to achieve providing 0.70 linear units. The ornamental hedgerow has a proposed final condition of poor which will take 1 year to achieve and bring 0.07 habitat units. See Appendix F for the full details.

4.0 ASSESSMENT

HABITAT UNITS

- 4.1 The baseline habitat units of the site are calculated to be 20.22. The trees are retained within the scheme, no other habitats will be enhanced or retained as part of the proposals.
- 4.2 The proposed landscaping plans are calculated to provide 25.21 habitat units (including the retained trees). The Biodiversity Impact Assessment shows a gain of 4.99 Habitat units as a result of delivering the proposed landscaping which is +24.69% biodiversity net gain.

HEDGEROW UNITS

- 4.3 The baseline hedgerow units are calculated to be 7.52, all the hedgerows on site are retained within the development plans, except for the 0.0065km at the site entrance which will be lost to enhance the access to the site. Further losses are predicted where the provision of pedestrian and cycle routes to the Barnsley Canal LWS (which are not included within the metric) but are indicated within the master plan. The loss of hedgerow for the access points will likely be a few meters which will be mitigated for as the site provides over 10% net gain for the hedgerow.
- 4.4 The proposed landscaping plans provide 8.29 hedgerow units (including the retained hedgerows). The Biodiversity Impact Assessment shows a gain of 0.77 hedgerow units as a result of delivering the proposed landscaping which is +10.20% biodiversity net gain.

RIVER UNITS

- 4.5 No habitats categorised under the River Units within the DEFRA 3.1 Metric are located on the existing site, or form part of the sites proposals/mitigation.

5.0 SUMMARY

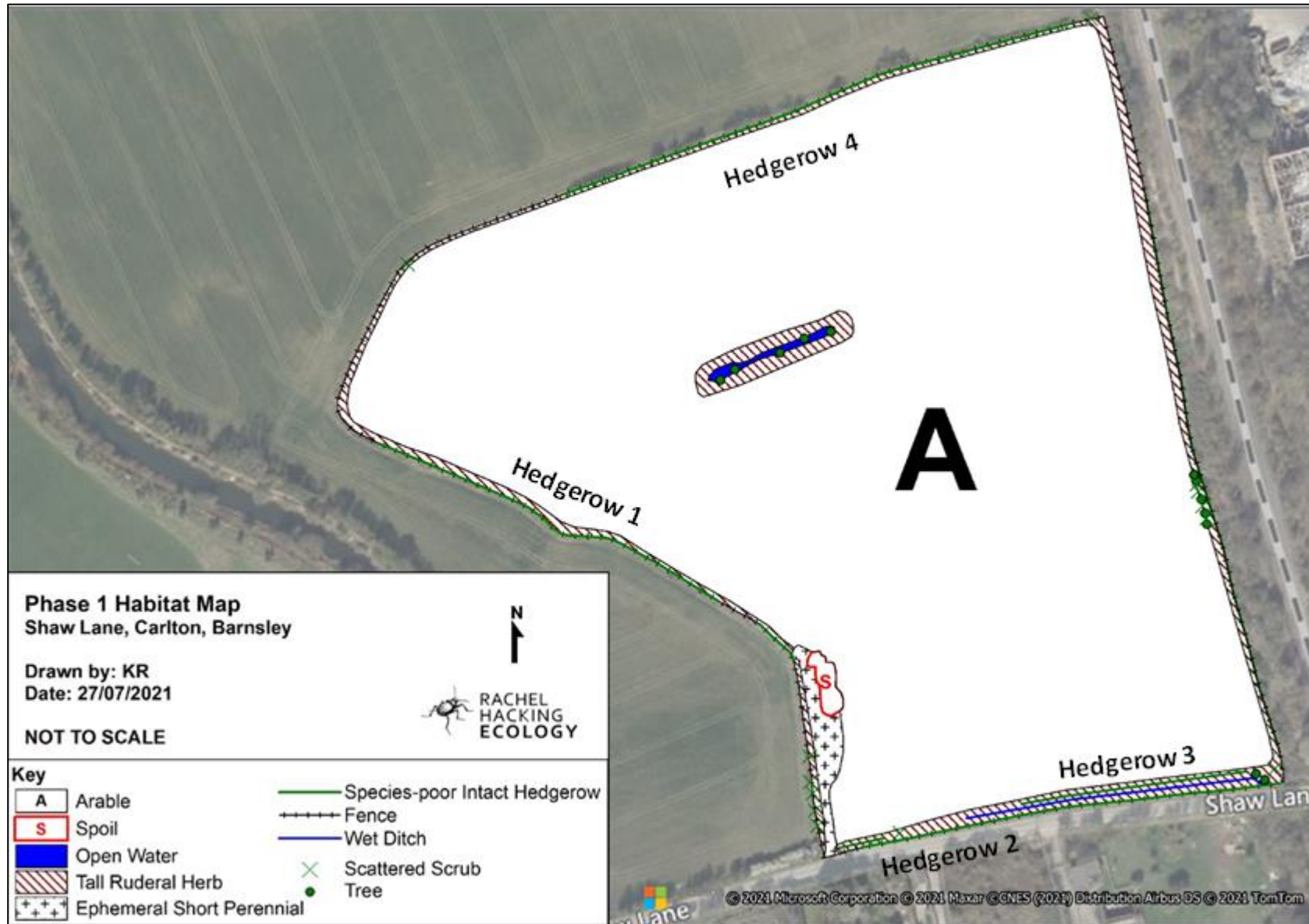
HABITAT UNITS

- 5.1 The proposed development at Shaw Lane, Carlton, Barnsley its current site layout and delivering the proposed mitigation, will provide a gain of 4.99 habitat units which equates to +24.69% biodiversity net gain. It will also provide a gain of 0.77 hedgerow units which equates to +10.20% biodiversity net gain.
- 5.2 The report shows that biodiversity net gain in both habitat units and hedgerow units can be achieved as a result of the proposed development at the site. Further ecological enhancements, not included within the DEFRA Metric 3.1, are recommended to be included on the site such as bat and bird boxes.

APPENDIX A - Proposed Masterplan courtesy of Network space and Spawforths



APPENDIX B – Phase 1 Habitat Survey Map



APPENDIX C – Baseline Habitat Unit Calculation

Ref	Habitats and areas			Distinctiveness		Condition		Strategic significance			Suggested action to address habitat losses	Ecological baseline Total habitat units
	Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic Significance multiplier		
1	Cropland	Cereal crops	7.11	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 \geq	14.22
2	Sparsely vegetated land	Ruderal/Ephemeral	0.061	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required \geq	0.12
3	Urban	Artificial unvegetated, unsealed surface	0.021	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
4	Sparsely vegetated land	Ruderal/Ephemeral	0.358	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required \geq	1.43
5	Lakes	Ponds (Non- Priority Habitat)	0.017	Medium	4	Moderate	2	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Same broad habitat or a higher distinctiveness habitat required (\geq)	0.15
6	Urban	Urban Tree	0.488	Medium	4	Moderate	2	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Same broad habitat or a higher distinctiveness habitat required (\geq)	4.29

APPENDIX D – Created Habitat Unit Calculation

Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness		Condition		Strategic significance				Post development/ post intervention habitats				Comments								
			Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance multiplier	Standard time to target condition years	Habitat created in acres/years	Delay in starting habitat creation years	Standard or adjusted time to target condition	Final time to target condition years	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied	Habitat units delivered	Assessor comments	Reviewer comments		
Urban	Developed land, sealed surface	3.65	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	0	0	0	Standard time to target condition applied	0	1.000	Low	Standard difficulty applied	Medium	0.07	0.00		
Urban	Vegetated garden	2.55	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	0	0	Standard time to target condition applied	1	0.565	Low	Standard difficulty applied	Low	1	4.92		
Grassland	Other neutral grassland	0.55	Medium	4	Moderate	2	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	5	0	0	0	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	4.05		
Urban	Introduced shrub	0.33	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	0	0	Standard time to target condition applied	1	0.565	Low	Standard difficulty applied	Low	1	0.84		
Urban	Sustainable urban drainage feature	0.29	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	0	0	Standard time to target condition applied	1	0.565	Medium	Standard difficulty applied	Medium	0.67	0.97		
Woodland and scrub	Mixed scrub	0.11	Medium	4	Poor	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	1	0	0	0	Standard time to target condition applied	1	0.565	Low	Standard difficulty applied	Low	1	0.45		
Urban	Rain garden	0.09	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	0	0	Standard time to target condition applied	1	0.565	Low	Standard difficulty applied	Low	1	0.77		
Urban	Urban Tree	3.34	Medium	4	Poor	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	10	0	0	0	Standard time to target condition applied	10	0.700	Low	Standard difficulty applied	Low	1	10.29		

APPENDIX E – Baseline Hedgerow Unit Calculation

UK Habitats - existing habitats			Habitat distinctiveness		Habitat condition		Strategic significance			Suggested action to address habitat losses	Ecological baseline Total hedgerow units
Hedge number	Hedgerow type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier		
	Native Hedgerow	0.18	Low	2	Good	3	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Same distinctiveness band or better	1.19
	Native Hedgerow	0.22	Low	2	Good	3	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Same distinctiveness band or better	1.45
	Native Hedgerow	0.24	Low	2	Moderate	2	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Same distinctiveness band or better	1.06
	Native Hedgerow - Associated with bank or ditch	0.29	Medium	4	Good	3	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Like for like or better	3.83

APPENDIX F – Proposed Hedgerow Unit Calculation

Baseline ref	New hedge number	Proposed habitats		Habitat distinctiveness		Habitat condition		Strategic significance			Temporal multiplier					Difficulty risk multipliers				Hedge units delivered	
		Habitat type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier	Standard Time to target condition/years	Habitat created in advance/years	Delay in starting habitat creation/years	Standard or adjusted time to target condition	Final time to target condition/years	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation		Difficulty multiplier applied
1		Native Hedgerow	0.19	Low	2	Moderate	2	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	5	0	0	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	0.70
2		Hedge Ornamental Non Native	0.07	V.Low	1	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	0	Standard time to target condition applied	1	0.955	Low	Standard difficulty applied	Low	1	0.07