
BIODIVERSITY IMPACT ASSESSMENT

SHIRLEY ROAD, CHEETHAM HILL,
GREATER MANCHESTER

REV.A

2022



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1.0 INTRODUCTION

Site Information

- 1.1 Rachel Hacking Ecology Limited was commissioned in 2022 by Euro Garages Limited to carry out a Biodiversity Impact Assessment of land at Shirley Road, Cheetham Hill, Greater Manchester (O.S. grid reference: SD 84235 01177 – see Figure 1). The site is currently in use as a petrol station with courtyard and a section of disused land to the rear. An area of improved grassland and tall ruderal vegetation exists on site and the disused land comprises a section of broadleaved and mixed woodland are also present on site.
- 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.

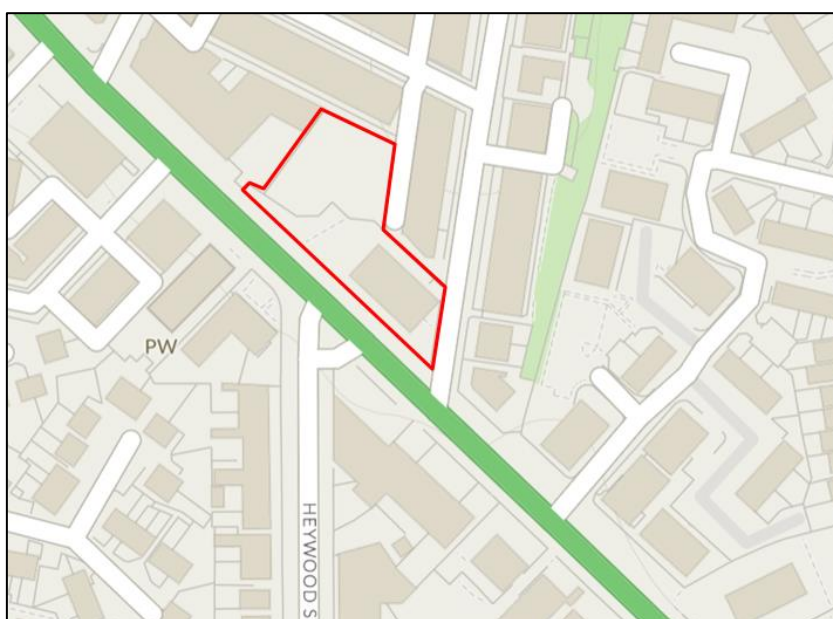


Figure 1 showing the redline boundaries of the site

Description of Development

- 1.3 The site will be the subject of a hybrid planning application for the demolition of the existing buildings and the construction of a petrol filling station and drive-thru. Parking and green space is also included within the scheme.

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 An Extended Phase 1 Habitat Survey of the site was undertaken in August 2022 to assess the habitats and their conditions (see *Extended Phase 1 Habitat Survey & Daytime Bat Survey at Cheetham Hill, Shirley Road, EG, 2022*).

DEFRA Biodiversity Metric 3.1 Calculation

- 2.2 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 Classification 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 site masterplan.
 - The site's proposed habitats and associated scores are calculated using measurements and habitat information provided by Euro Garages Limited and DEP Landscape Architecture Limited, as well as over-laying site plans onto the MapInfo GIS software and taking area measurements.
- 2.3 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

- 2.4 Joe Cooper carried out the calculations and assessment in October 2022 with an update carried out in January 2023. The calculations were based on the results of the aforementioned Phase 1 Habitat Survey, the proposed site plans and areas provided by DEP Landscape Architecture Limited (See Appendix A and B). Joe is an experienced ecologist and trained in biodiversity impact assessment.

3.0 RESULTS

- 3.1 The baseline habitats and their condition assessments are based on the Extended Phase 1 Habitat Survey of the site (Rachel Hacking Ecology 2022) and are described below.
- 3.2 The baseline habitat units of the site are calculated to be 0.61 (see Appendix C). No habitat units will be retained as part of the proposals. The habitat conditions were assessed using the Biodiversity Metric 3.1 Habitat Condition Assessment Sheets document.

Baseline Habitat units

Grassland – Modified Grassland

- 3.3 This habitat is the least abundant on site, is species-poor and intensively managed. This habitat is categorised as Amenity Grassland under the Phase 1 Habitat, JNCC standards. The areas of modified grassland have a total measurement of 0.02695ha.
- 3.4 This habitat is assessed as having poor condition (see Table 1). There are less than 6 species per m² and the sward height is not varied. The grassland passes 5 of the Condition Assessment Criteria but fails the first criteria which is essential to achieve moderate or good condition. Therefore, the grassland provides 0.06 habitat units.

<i>Table 1 showing the condition assessment of the Modified Grassland – Grassland Habitat (Low Distinctiveness)</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	F	P	P	P	F	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?			Condition 1 is non-negotiable to achieve a moderate condition.				Condition (Good/Moderate /Poor):				Poor			

Urban – Developed Land; Sealed Surface

- 3.5 This habitat consists of the hardstanding across the site. This habitat is categorised as Bare Ground under the Phase 1 Habitat Survey, JNCC standards. The DEFRA 3.1 Metric automatically assigns this habitat a very low distinctiveness score and does not require a condition assessment. This habitat has a total measurement of 0.11748ha and does not provide any habitat units.

Woodland and Forest - Other Woodland; Broadleaved A

- 3.6 A triangular area of broadleaved woodland is located in the southern part of the site and considered to be the most valuable habitat on site. This habitat is categorised as Broadleaved Woodland; Semi-natural under the Phase 1 Habitat, JNCC standards. The area of this woodland is 1ha, is considered to have a good condition score and provides 0.55 habitat units (see Table 2).

<i>Table 2 showing the Indicators within the Woodland Condition Assessment Criteria and the score achieved</i>	
Indicator	Score (1-3)
Age distribution of trees	1
Wild, Domestic and feral herbivore damage	3
Invasive plant species	2
Number of native tree species	2
Cover of native tree and shrub species	2
Open space within woodland	3
Woodland regeneration	1
Tree health	3
Vegetation and ground flora	1
Woodland vertical structure	2
Veteran trees	1
Amount of deadwood	1
Woodland disturbance	1
	23 (Poor)

On-site Baseline Hedgerow Units

3.7 There are no baseline hedgerow units for this site.

Proposed Habitats – Post Development

Created Habitat Units

- 3.8 The created habitat units are calculated to provide 0.34 (see Appendix D).

Grassland – Modified Grassland

- 3.9 This habitat includes the areas marked on the landscape proposals as ‘general amenity grass’. This habitat is found across the site, with a total measurement of 0.0097ha. The grassland proposed final condition is ‘poor’. This will take 1 year to achieve and provide 0.02 habitat units.

Urban - Developed; Sealed Surface

- 3.10 This habitat includes the hardstanding access roads to the proposed petrol station and drive-thru unit. These areas have a total measurement of approximately 0.2303ha. This is a habitat with no strategic importance or distinctiveness and provides no habitat units.

Urban – Urban Tree

- 3.11 28 trees are proposed across the Phase 1 site, covering approximately 0.1139ha, as per the Urban Tree Helper in the DEFRA 3.1 Metric. The proposed final condition for this habitat is targeted as ‘moderate’. This has a proposed target to condition time of 10 years and will provide 0.35 habitat units.

Urban – Introduced Shrub

- 3.12 This habitat includes the areas marked on the landscape proposals as ‘shrub beds’. This habitat is found across the site, bordering the areas of sealed surface with a total measurement of 0.0287ha. This has a proposed target to condition time of 1 year and will provide 0.06 habitat units.

Hedgerow Unit Creation

- 3.13 No hedgerow units are being created.

4.0 ASSESSMENT

Habitat Units

- 4.1 The baseline habitat units of the site are calculated to be 0.61. No habitats categorised under habitat units will be enhanced or retained as part of the proposals.
- 4.2 The proposed landscaping plans are calculated to provide 0.42 habitat units. The Biodiversity Impact Assessment shows a loss of 0.18 habitat units, which equates to -30.39% biodiversity net loss in habitat units. The trading rules have been satisfied.

Hedgerow Units

- 4.3 There are no existing habitats categorised under hedgerow units on site and no hedgerow units are proposed as part of the landscaping plans.

River Units

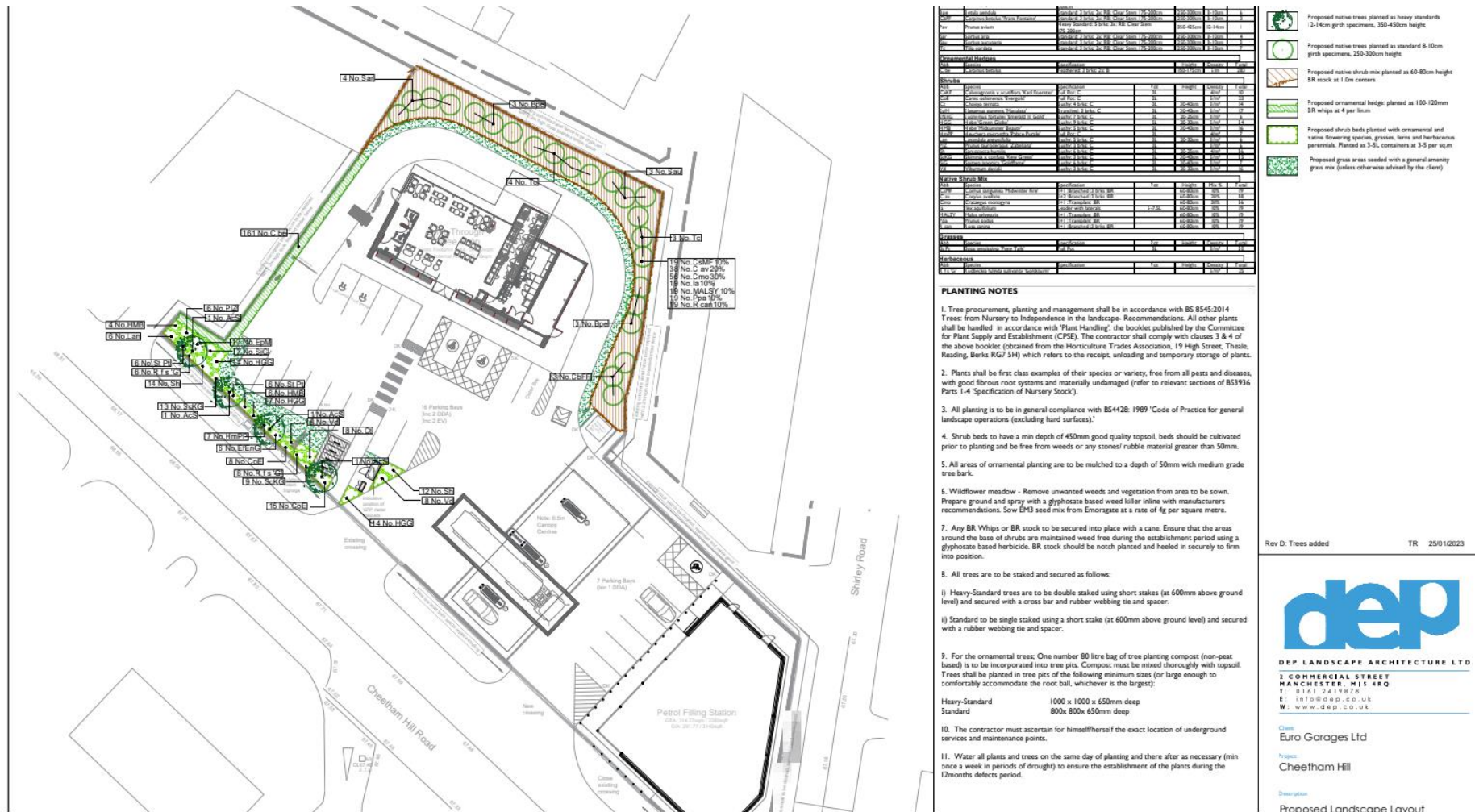
- 4.4 There are no habitats categorised under the River Units within the DEFRA 3.1 Metric are located on the existing site, or form part of the site's proposals/mitigation.

5.0 SUMMARY

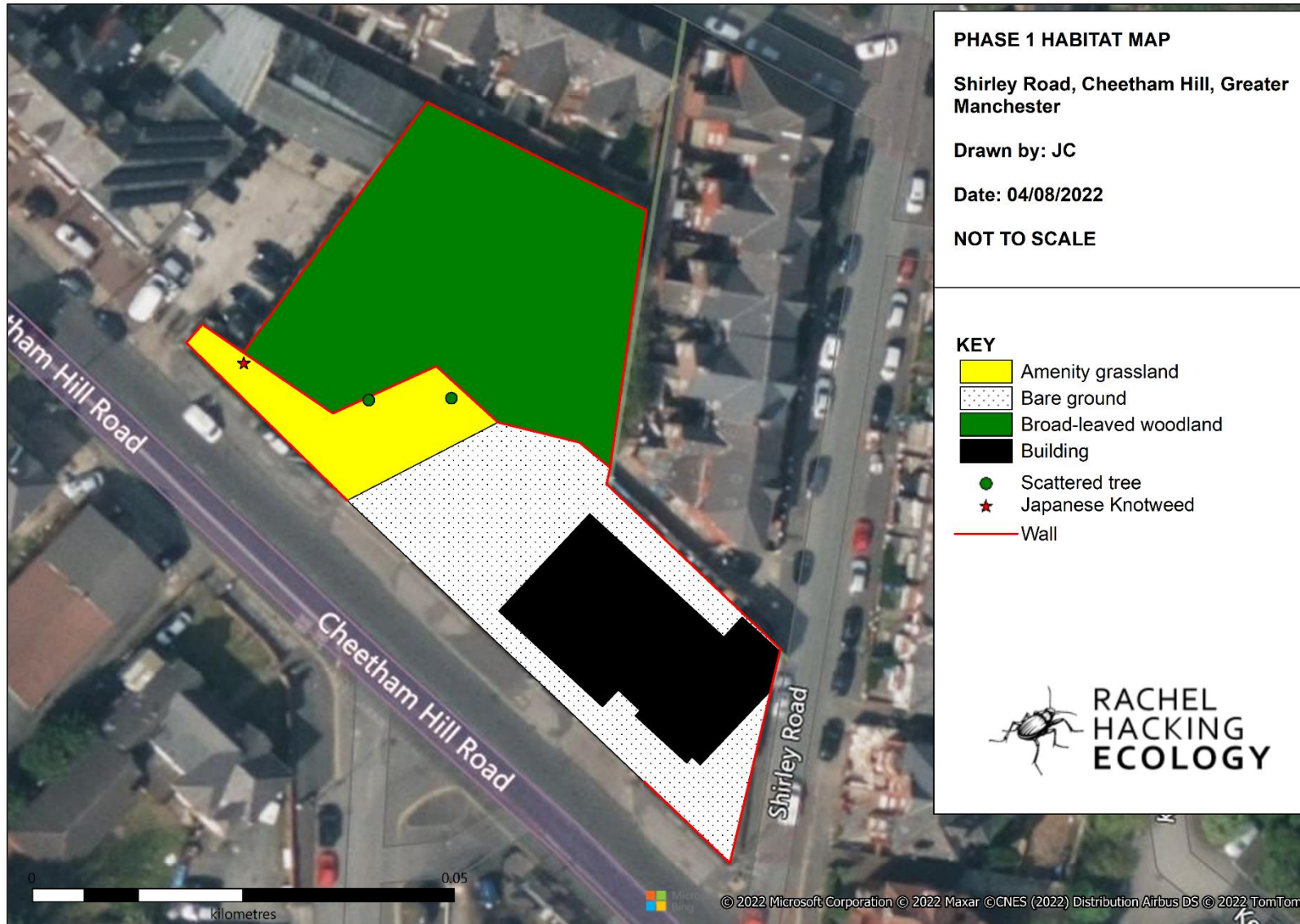
Habitat Units

- 5.1 The proposed development at land off Larch Street, Leicester, in its current site layout and delivering the proposed mitigation, will result in the loss of 0.18 habitat units which equates to -30.39% biodiversity net loss in habitat units.
- 5.2 It is considered mitigation for the losses of habitat units cannot be provided on site. Therefore, it is thought mitigation can be provided, typically, by one of the following options:
- A financial contribution to Salford City Council by way of a Section 106 agreement to benefit a local wildlife site in the vicinity. As a guide to off-set, an average unit cost for Biodiversity Habitat Units is considered by Defra to be in the region of £9,000 - £15,000 per habitat unit lost (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/839610/net-gain-ia.pdf). Given the proposed habitats to be lost on site, it is estimated the cost per habitat unit would be towards the lower end of this range.
 - Provide mitigation on land in the vicinity of the proposed development site that is owned by, and in control of the landowner. This would require further baseline surveys of the off-site mitigation land and subsequent biodiversity net gain calculations.

APPENDIX A - Proposed Site Plan Courtesy of DEP LANDSCAPE ARCHITECTURE LIMITED (5064 01B)



APPENDIX B – Phase 1 Habitat Survey Map



APPENDIX C – Baseline Habitat Unit Calculation

Shirley Road, Cheetham

A-1 Site Habitat Baseline

Condense / Show Columns

Condense / Show Rows

Main Menu

Instructions

Ref	Broad Habitat	Habitats and areas		Distinctiveness		Condition		Strategic significance			Suggested action to address habitat losses	Ecological baseline
		Habitat Type	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic Significance multiplier		Total habitat units
1	Urban	Developed land, sealed surface	0.11748	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	Grassland	Modified grassland	0.02695	Low	2	Poor	1	Location ecologically desirable but not in	Medium strategic	1.1	Same distinctiveness or better	0.06
3	Woodland and forest	Other woodland, broadleaved	0.119	Medium	4	Poor	1	Formally identified in local strategy	High strategic	1.15	Same broad habitat or a higher	0.55
4												
5												
6												
7												
8	Total habitat area		0.26									0.61

Retention category biodiversity value						Bespoke compensation agreed for unacceptable losses	Comments	
Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area habitat lost	Units lost		Assessor comments	Reviewer comments
	0	0.00	0.00	0.12	0.00		Sealed surface consists of concrete, tarmac and bare ground	
	0	0.00	0.00	0.03	0.06		Poor quality grassland present in small patch to the	
	0	0.00	0.00	0.12	0.55		Patch of poor woodland which is comprised of limited	
1	0.00	0.00	0.00	0.26	0.61			

Total area lost (excluding area of Urban trees and Green walls) 0.26

APPENDIX D – Created Habitat Unit Calculation

Shirley Road, Cheetham												
A-2 Site Habitat Creation												
Condense / Show Columns			Condense / Show Rows									
Main Menu			Instructions									
Post development/ post intervention habitat												
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/years	Habitat created in advance/years	Delay in starting habitat creation/years
Urban	Developed land; sealed surface	0.2303	V Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0		
Grassland	Modified grassland	0.0097	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1		
Urban	Introduced shrub	0.0287	Low	2	Condition	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1		
Urban	Urban Tree	0.1139	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	27		
Total habitat area		0.38										
Site Area (Excluding area of Urban trees and Green walls)		0.27										

Temporal multiplier			Difficulty multipliers				Habitat units delivered	Comments	
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		Assessor comments	Reviewer comments
Condition applied	0	1.000	Low	Standard difficulty applied	Medium	0.67	0.00	the proposals	
Condition applied	1	0.965	Low	Standard difficulty applied	Low	1	0.02	A small patch of grassland bordering the parking and drive-thru area	
Condition applied	1	0.965	Low	Standard difficulty applied	Low	1	0.06	Shrub beds and ornamental planting to be	
Condition applied	27	0.382	Low	Standard difficulty applied	Low	1	0.35	Heavy standard and standard trees being planted on the northern boundary	
Total Units							0.42		