

Land at Bealey Industrial Estate, off Dumers Lane, Radcliffe M26 2QG

ASSESSMENT OF BIODIVERSITY NET GAIN

November 2024

Version 2

ERAP (Consultant Ecologists) Ltd Reference: 2024-200b

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Document Control

Survey Type:	Surveyors	Survey Date(s)
UK Habitat Classification Survey (including Condition Assessments of habitats) for On-site Habitats	Victoria Burrows B.Sc. (Hons) M.Sc. CEnv MCIEEM Principal Ecologist	15 th July 2024 12 th October 2024
UK Habitat Classification Survey (including Condition Assessments of habitats) for Off-site Habitats	Victoria Burrows B.Sc. (Hons) M.Sc. CEnv MCIEEM Principal Ecologist	9 th August 2024
Reporting	Personnel	Date
Author	Victoria Burrows B.Sc. (Hons) M.Sc. CEnv MCIEEM Principal Ecologist	2 nd November 2024
Signature(s)		
Checked by	Rachel Brown B.Sc. (Hons)	4 th November 2024
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1.0 INTRODUCTION

1.1 Background and Rationale

- 1.1.1 ERAP (Consultant Ecologists) Ltd was commissioned by Westchurch Homes to carry out an assessment of Biodiversity Net Gain (BNG) of land at Bealey Industrial Estate, Dumers Lane Radcliffe, M26 2QG (hereafter the 'site'). The Ordnance Survey (OS) grid reference at the centre of the site is SD 79785 08113.
- 1.1.2 The assessment was requested to inform a planning application proposing the demolition of buildings, clearance of vegetation, remediation of the site and redevelopment to housing.
- 1.1.3 This BNG assessment has been prepared to provide an assessment of the biodiversity value of the baseline of the site, an assessment of the value of post-development habitats based on the site proposals and landscape strategy, and provides guidance in relation to the requirements to attain a net gain in accordance with *Biodiversity Net Gain: Good Practice Principles for Development* (CIEEM, 2016).
- 1.1.4 This report also advises on how compliance with Chapter 15, paragraph 186(d) of the *National Planning Policy Framework* (NPPF) (Department for Levelling Up, Housing and Communities, 2023)¹ can be achieved, which states '*opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate*'.

1.2 Site Description

- 1.2.1 An aerial image of the site is appended at **Figure 1**.
- 1.2.2 The total site area is **1.94 hectares**².
- 1.2.3 The site is located to the east of Radcliffe and comprises a mix of hardstanding yards used for the storage of coaches and other vehicles, buildings and a mosaic of unmanaged neutral grassland, Bramble scrub, Willow scrub and scattered self-seeded trees. The western, southern and eastern site boundaries meet existing built development. The northern site boundary is undefined and meets neutral grassland, rushes and scrub beyond which lies Swan Lodge Site of Biological Importance (SBI).
- 1.2.4 The habitats within the site are described and assessed in *2024-200 Land at Bealey Industrial Estate, Dumers Lane, Radcliffe M26 2QG Ecological Survey and Assessment* (ERAP (Consultant Ecologists) Ltd, 2024), hereafter referred to as the 'ecology report'.
- 1.2.5 A summary of the habitats present within the site is presented at **Section 3.1** of this report.

1.3 Proposed Development Description

- 1.3.1 The assessment has been requested to inform a planning application for residential development. The proposals are presented at *Proposed Site Layout* (Westchurch Homes, 2024) hereafter the 'proposals plan' and the *Proposed Masterplan* (Enzygo, 2024), hereafter the 'landscape masterplan'.

¹ Hereafter the NPPF

² As measured by ERAP (Consultant Ecologists) Ltd; detail on the methods used to measure the area of the site are presented at **Section 2.0**.

1.4 Scope of Study

- 1.4.1 This report has been prepared to accompany a completed assessment of BNG using *The Statutory Biodiversity Metric Calculation Tool* (Natural England, 2023). The completed Microsoft Excel spreadsheet assessment is presented as a separate document, named 'ERAP Ltd 2024-200 Statutory Biodiversity Metric Dumers Lane, Radcliffe_v2_25.11.24', hereafter referred to as the 'BNG Metric'.
- 1.4.2 It is intended that this report provides a transparent assessment to demonstrate the calculation of net gain, based on the reasonable parameters assumed for the proposals (refer to **Section 2.3**). This approach has been applied on a number of other sites ERAP (Consultant Ecologists) Ltd has assisted with and has been accepted by the relevant Local Planning Authorities (LPA) and their ecological advisors to enable a planning application to progress.

2.0 METHOD OF SURVEY

2.1 Habitat Assessment and Mapping

Baseline: On-site Habitats

- 2.1.1 A Phase 1 Habitat Survey including an assessment in accordance with the UKHab and condition assessments of the habitats present was carried out by Victoria Burrows B.Sc. (Hons) M.Sc. CEnv MCIEEM on 15th July 2024 and 12th October 2024. To ensure the survey data collated is as accurate as possible two survey visits were carried out at this site with visits in July and October 2024. The July survey was carried out at an optimum time to detect most flowering plants and observations of breeding bird activity at the site (for example). The October visit was carried out after some areas of vegetation clearance had been undertaken in late September (i.e. after the bird nesting season) to enable site investigation. To avoid under recording the value of the habitats the status and conditions at the site the baseline conditions recorded in July 2024 are reported in this assessment, however, the benefit of the cutting back of the vegetation enabled better access to the trees to assess their condition in accordance with BNG and to search for potential roost features for bats.
- 2.1.2 On site habitat mapping was assisted via use of GPS technology using a *Topographical Plan* (RJP Surveying Consultants Ltd, 2024) and *ESRI World Imagery* as base plans. The topographical plan was provided to ERAP (Consultant Ecologists) Ltd as a spatially referenced .dwg file; the file has been converted to .dxf format and inputted into QGIS.
- 2.1.3 Each of the habitats within the site has been assessed in accordance with the UKHab to determine each habitat type present. This has allowed a reliable classification of habitats in accordance with those used by the BNG Metric.
- 2.1.4 The UKHab has been designed to function at two scales: fine scale (25m² or 5 metres length) and large scale (400m² or 20m² length). It has been considered for the purposes of this survey (where the UKHab has been used to inform the BNG calculation of a relatively small area) that a finer scale of 5m² is appropriate for the classification of habitats.
- 2.1.5 A plan showing the baseline habitats present within the site in accordance with Phase 1 Habitat Survey is appended at **Figure 2**. A plan showing the habitats at site in accordance with UKHab symbology is appended at **Figure 3**.

- 2.1.6 Condition Assessments for each of the habitats present within the site have been completed in accordance with *The Statutory Biodiversity Metric – Technical Annex 1: Condition Assessment Sheets and Methodology* (Natural England, November 2023) and are appended at **Section 7.2**.

Post-development Habitats

- 2.1.7 The post development habitats have been calculated using *the landscape masterplan* (Enzygo, 2024). Reference is also made to a plan provided by Westchurch Homes which identifies the areas of greenspace at the post-development stage that will be managed by a management company (or similar) (refer to **Appendix 3**). These plans have been provided to ERAP (Consultant Ecologists) Ltd as spatially referenced .dwg files; the files have been converted to .dxf format and inputted into QGIS.
- 2.1.8 A plan showing the proposed habitats in accordance with UKHab symbology is appended at **Figure 4** and target condition assessments for each of the proposed habitats are appended at **Section 7.4**.

Baseline: Off-site Habitats

- 2.1.9 As evidenced in this report it is not possible to carry out the necessary remediation and required housing density and secure 10% statutory BNG on site. To address the deficit it is the intention to use off-site habitats within the same ownership and local planning authority area to demonstrate compliance with statutory BNG.
- 2.1.10 The off-site area is located to the east of Radcliffe Moor Road, Radcliffe BL2 6QG (Ordnance Survey grid reference SD 75835 08950) (refer to **Figures 5 and 6**).
- 2.1.11 The off-site habitats were examined on 9th August 2024 by Victoria Burrows B.Sc. (Hons) M.Sc. CEnv MCIEEM. The weather conditions were dry and sunny with a moderate breeze (Beaufort scale 4) and an air temperature of 19°C.
- 2.1.12 Condition Assessments were carried out at the relevant habitats in accordance with the methods outlined above and searches were carried out for any ecological constraints that may impede the use of the land for off-site BNG.

2.2 Survey and Reporting Limitations

- 2.2.1 All measurements have been either estimated whilst on site or measured using QGIS.
- 2.2.2 Care was taken to access all areas of the site, although in local areas of the on-site boundary the density of the Japanese Knotweed was impenetrable. This is not considered to be a significant survey limitation as examination of the perimeter of the areas of knotweed indicates that no habitats have been missed.
- 2.2.3 At this stage a detailed landscaping scheme has not been provided for the site. As described at **Section 4.0** below, this report provides a detailed assessment of the ecological value of the baseline habitats (in accordance with the BNG Metric) prior to development and a preliminary assessment of the ecological value of the site post development status based on a number of parameters.

2.3 Evaluation Methods and Rules Applied

Habitats and Assessment

- 2.3.1 Habitats have been assessed to determine whether they meet those described in *UK Biodiversity Action Plan: Priority Habitat Descriptions* (Maddock, A (ed), 2008); these lists are used to help draw up the statutory lists of Priority Habitats, as required under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006*. Where suitable, the ecological value of the habitats present have been assessed using the terms outlined in *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018).
- 2.3.2 QGIS has been used to calculate the total area / length of each baseline habitat present within the site and the area / length of the proposed habitats at the site.
- 2.3.3 Each habitat and individual trees have been assessed to determine whether they are 'irreplaceable habitat', defined in NPPF as '*Habitats which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity. They include ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen*'. The further detail presented in *The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024* (GOV.UK, 2023) document has also been referred to.
- 2.3.4 Existing individual trees have been measured using the Tree Helper tool provided by the BNG Metric. Proposed urban trees have been measured using their specification on the landscape proposals plans and the Tree Helper provided within the BNG Metric.

Relevant Guidance

- 2.3.5 Government advice on wildlife, as set out in the NPPF and associated government circulars has been taken into consideration.

Assumptions

- 2.3.6 It is assumed that vegetated gardens will be included in the post-development calculation. It is recognised that there is limited control over what happens to the gardens in the long term; vegetated gardens are scored accordingly in the BNG Metric. Inclusion of vegetated gardens within the metric is in accordance with the guidance in relation to gardens issued during the Greater Manchester Combined Authority / CIEEM Webinar³.
- 2.3.7 Reasonable assumptions have been made in relation to the condition assessments for the proposed habitats both on-site and off-site; the proposed condition assessment for each habitat is appended at **Sections 7.3 and 7.5** Long-term management of the proposed habitats is required to secure the proposed condition.

³ Advice provided by Natural England in a recent (February 2021) Question and Answer Session on the Greater Manchester Combined Authority / CIEEM Webinar stated 'Q. How should gardens be treated within the metric? As no control of what happens within these areas is possible, should they be excluded? A. Gardens are included in the metric but the metric assumes that a significant number will disappear and decked over etc. over time. So they are scored accordingly. They still generate biodiversity units, but account has been taken of the fact that, as you say, there is limited control over what happens to them [Natural England]' (GMEU / CIEEM, 2021).

3.0 SURVEY RESULTS

3.1 On-Site Description

Baseline: On-site Habitats

3.1.1 Refer to **Figures 2** and **3**. The site is described as follows:

The approximately 1.94 hectare site is located to the east of Radcliffe and comprises a mix of hardstanding yards used for the storage of coaches and other vehicles, buildings and a mosaic of unmanaged neutral grassland, Bramble scrub, Willow scrub and scattered self-seeded trees. The western, southern and eastern site boundaries meet existing built development. The northern site boundary is undefined and meets neutral grassland, rushes and scrub beyond which lies Swan Lodge Site of Biological Importance (SBI).

No semi-natural habitat, Priority Habitat or irreplaceable habitat is present at the site.

Five invasive plant species listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were detected at the site which comprises stands of dominant Japanese Knotweed. Indian Balsam was detected throughout the site with scattered plants of Montbretia within the scrub and local areas of Variegated Yellow-archangel and Virginia Creeper which have colonised the site from the neighbouring gardens.

Baseline: Off-site Habitats

3.1.2 Refer to **Figure 5**. The off-site habitat to the east of Radcliffe Moor Road comprises an area of agriculturally managed modified grassland which is described by the UKHab as g4 modified grassland with the secondary code 110 silage and haylage. A plant species list is appended at **Table 7.5** and photographs are appended at **Section 7.1**.

3.1.3 There are no trees or hedgerows within the off-site area. None of the habitats at the off-site baseline are Priority Habitat or an irreplaceable habitat. The off-site land and adjacent areas have no statutory designation for nature conservation.

3.1.4 Evidence of badger foraging was recorded but no setts were located within the off-site boundary or a radius of 50 metres from the site boundary. There are no other ecological constraints in relation to the use of this habitat at Radcliffe Moor Road to provide off-site BNG.

3.2 Assessment of Baseline Habitats

On-site Habitats

3.2.1 **Tables 3.1** and **3.2** provide a summary of the habitats present, their condition assessment result and their area within the site. Condition assessments for each habitat are appended at **Section 7.2**.

Table 3.1: Summary of Baseline Area Based Habitats within the Site

Habitat Reference	UK Habitat Classification Type	BNG Habitat Equivalent	Condition Assessment Result	Area (ha)
Habitat 1 Bare ground beneath Willow trees (T18)	u1 built-up areas and gardens with the secondary code 200 tree	Urban – Bare ground	Poor	0.0662
Habitat 2 Dense stands of Japanese Knotweed	u1 built-up areas and gardens	Urban – artificial unvegetated; unsealed surface	N/A - Other	0.1631
Habitat 3 Hardstanding	u1b developed land; sealed surface	Urban – Developed land; sealed surface	N/A - Other	0.4837
Habitat 4 Buildings	u1b5 buildings	Urban – Developed land; sealed surface	N/A - Other	0.1072
Habitat 5 Introduced shrub	h3h mixed scrub with the secondary code 847 introduced shrub	Urban – Introduced shrub	Condition Assessment N/A	0.0202
Habitat 6 Mixed shrub 1	h3h mixed scrub with the secondary codes 523 non-native, 524 invasive non-native, 200 tree and 518 neglected	Heathland and shrub – Mixed scrub	Poor	0.0173
Habitat 7 Mixed shrub 2	h3h mixed scrub with the secondary codes 523 non-native, 524 invasive non-native, 200 tree and 518 neglected	Heathland and shrub – Mixed scrub	Poor	0.0747
Habitat 8 Mixed shrub 3	h3h mixed scrub with the secondary codes 523 non-native, 524 invasive non-native and 518 neglected	Heathland and shrub – Willow scrub	Poor	0.2969
Habitat 9 Mixed shrub 4	h3h mixed scrub with the secondary codes 523 non-native, 524 invasive non-native, 200 tree and 518 neglected	Heathland and shrub – Mixed scrub	Poor	0.0013
Habitat 10 Mixed shrub 6	h3h mixed scrub with the secondary codes 523 non-native, 524 invasive non-native, 200 tree and 518 neglected	Heathland and shrub – Mixed scrub	Moderate	0.0315

Habitat Reference	UK Habitat Classification Type	BNG Habitat Equivalent	Condition Assessment Result	Area (ha)
Habitat 11 Mixed shrub 7	h3h mixed scrub with the secondary codes 523 non-native, 524 invasive non-native, 200 tree and 518 neglected	Heathland and shrub – Mixed scrub	Poor	0.0147
Habitat 12 Bramble scrub	h3d Bramble scrub with the secondary code 521 unmanaged.	Heathland and shrub – Bramble scrub	Condition Assessment N/A	0.1688
Habitat 13 Other neutral grassland	g3c5 <i>Arrhenatherum</i> neutral grassland with the secondary code 521 unmanaged.	Grassland – Other neutral grassland	Poor	0.4938
Total:				1.9394

Table 3.2: Summary of Individual Trees within the Site

Habitat Reference	UK Habitat Classification Type	BNG Habitat Equivalent	Condition Assessment Result	Area (ha) ⁴
Habitat 14 Individual trees T9 (medium tree in 'good' condition)	secondary code 32 scattered trees within an area of u1b6 other developed land	Individual trees – urban tree	Good	0.0163
Habitat 15 Tree group T18 (Goat Willow) in 'moderate' condition	secondary code 32 scattered trees within an area of u1b6 other developed land	Individual trees – urban tree	Moderate	0.0163
Habitat 16 4 medium trees in 'moderate' condition	secondary code 32 scattered trees within an area of u1b6 other developed land	Individual trees – urban tree	Moderate	0.0651
Habitat 17 14 small trees in 'moderate' condition	secondary code 32 scattered trees within an area of u1b6 other developed land	Individual trees – urban tree	Moderate	0.0570
Habitat 18 4 small trees in 'poor' condition	secondary code 32 scattered trees within an area of u1b6 other developed land	Individual trees – urban tree	Poor	0.0163
Total:				0.1710

3.2.2 The baseline BNG score for the site is provided at **Section 5.0**, below.

⁴ Due to the way individual trees are calculated by the metric they do not contribute to the total habitat area calculation, but are additional to it.

Off-site Habitats at Radcliffe Moor Road

3.2.3 **Table 3.3** provides a summary of the habitats present, their condition assessment result and their total area. The baseline condition assessment is presented at **Section 7.3**. Note that no hedgerow or river habitats are present at the off-site land.

Table 3.3: Summary of Baseline Area Based Habitats within the Off-site Habitat

Habitat Reference	UK Habitat Classification Type	BNG Habitat Equivalent	Condition Assessment Result	Area (ha)
Off-site 1 Modified grassland	g4 modified grassland	Grassland – modified grassland	Moderate	0.7700
Total:				0.7700

3.2.4 The baseline BNG score for the off-site is provided at **Section 5.0**, below.

4.0 POST DEVELOPMENT HABITATS

4.1 Mitigation Hierarchy

4.1.1 As detailed in the ecology report the proposals comprise the demolition of the buildings, removal of structures, vegetation clearance and remediation over the entire site and redevelopment of the site to residential development. Access will be via the existing road network off Dumers Lane.

4.1.2 In accordance with the mitigation hierarchy, ecological guidance has been provided to the design team throughout the preparation of the proposals, the guidance has resulted in the following:

- i. Modification of the redline boundary to avoid the southern tip of the Swan Lodge SBI and Bealey's Goit; and
- ii. Realignment of the boundary at the north-eastern margin to maximise the buffer between the proposed built environment and Hutchinson's Goit / Swan Lodge SBI.

4.1.3 The remediation of the site, including the effective treatment of the invasive plant species within the on-site area, will result in the unavoidable removal of the Willow scrub and scattered trees and all other habitats. Accommodation of tree planting within the landscape planting proposals will seek to provide habitat structural diversity, however, it is not feasible to replicate the Willow scrub habitat within the new residential area. In accordance with the mitigation hierarchy and the options available, to compensate for the habitat losses and to work towards securing statutory BNG, the losses of the relevant habitats will be compensated for off-site and secured by the Biodiversity Net Gain (BNG) assessment / an appropriate Habitat Management Plan.

4.2 Consideration of Target Condition Assessments

4.2.1 Condition Assessments for each of the proposed on-site habitats are presented at **Section 7.4**. A long-term habitat management plan with an appropriate monitoring regime is required to secure the condition of these habitats in the long-term.

4.3 Assessment of Post-Development Habitats

Post-development: On-site

- 4.3.1 The *landscape masterplan* demonstrates that 1.68 hectares of the 1.94 hectares site (i.e. 87%) will be developed to roads, housing and gardens, and the remaining 0.26 hectares (13%) will comprise habitats to be created in the greenspace and managed by a Management Company.
- 4.3.2 Of the 1.68 hectares area to be developed an area of 0.3681ha is roads and it has been assumed that a 70/30 mix of houses and driveways / residential gardens will be created; 0.9157ha of developed land and 0.3924ha gardens have been inputted to the metric.

Table 4.1: Summary of Area-based Habitats to be Created at the Site

Habitat Type	BNG Equivalent Habitat	Target Condition	Area (ha)
Proposed Habitats			
Habitat A Roads	Urban – Developed land; sealed surface	N/a	0.3681
Habitat B Houses and driveways	Urban – Developed land; sealed surface	N/a	0.9157
Habitat C Vegetated gardens	Urban – Vegetated gardens	N/a	0.3924
Habitat D Modified grassland	Grassland – Modified grassland	Moderate	0.1170
Habitat E Wildflower grassland	Grassland – Other neutral grassland	Moderate	0.1462
Total			1.9394

Table 4.2: Summary of Individual Trees to be Retained and Created at the Site

Habitat Reference	BNG Habitat Equivalent	Target Condition	Area (ha) ⁵
Retained Habitats			
Habitat 17 Two small trees in ‘moderate’ condition (trees T14 and T24)	Urban – urban trees	Moderate	0.0081
Proposed Habitats			
Habitat F Urban trees (67, small size)	Urban – urban trees	Moderate	0.2728
Total			0.2809

Table 4.3: Summary of Hedgerow Habitats to be Created at the Site

Habitat Type	BNG Equivalent Habitat	Target Condition	Length (km)
Proposed Habitats			
Habitat G Native hedgerow	Hedgerow – Native hedgerow	Moderate	0.536
Total			0.536

⁵ Small urban trees have a diameter at breast height (DBH) of up to 30cm, medium urban trees have a DBH of 30 to 60cm, large urban trees have a DBH of 60 to 90cm and very large trees have DBH of more than 90cm. Due to the way individual trees are calculated by the metric they do not contribute to the total habitat area calculation, but are additional to it.

4.4 Consideration of Off-site Habitats at Radcliffe Moor Road

4.4.1 To secure statutory BNG and satisfy the trading rules the following actions are required (and considered to be feasible) at Radcliffe Moor Road:

- Enhancement of 0.47ha of modified grassland to other neutral grassland in 'moderate' condition;
- Enhancement of 0.3ha of modified grassland to mixed native scrub in 'good' condition; and
- Planting of 40 new small native trees in 'moderate' condition at 8 metre spacings (at least).

4.4.2 The target condition assessments are presented in **Section 7.5** and the proposals are illustrated on the *Offsite BNG* plan prepared by Enzygo and presented in accordance with UKHab symbology at **Figure 6**.

5.0 HEADLINE RESULTS, EVALUATION AND CONCLUSION

5.1 The headline results of the BNG Calculator are presented at **Table 5.1** below.

Table 5.1: Results of Statutory Biodiversity Metric Calculation Tool

On-site Baseline	Habitat units	6.06	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site Post Intervention	Habitat units	3.18	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site net change (units % percentage)	Habitat units	-2.88	-47.52%
	Hedgerow units	1.79	N/a
	Watercourse units	0.00	0.00%
Off-site Baseline	Habitat units	3.08	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site Post Intervention	Habitat units	6.58	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units % percentage)	Habitat units	3.50	113.48%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Combined Net Unit Change	Habitat units	0.61	
	Hedgerow units	1.79	
	Watercourse units	0.00	
Spatial Risk Multiplier (SRM) Reductions	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Total Net Unit Change	Habitat units	0.61	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Total Net % Change	Habitat units	10.13%	
	Hedgerow units	0.00%	
	Watercourse units	0.00%	
Trading rules satisfied?		Yes	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	Comment
Habitat units	10%	6.06	6.67	0.00	No additional area habitat units required to meet target
Hedgerow units	10%	0.00	0.00	0.00	No additional area habitat units required to meet target
Watercourse units	10%	0.00	0.00	0.00	No additional area habitat units required to meet target

- 5.2 A net gain in accordance with the requirements of statutory net gain is demonstrated by the proposals with the use of the off-site land at Radcliffe Moor Road. The trading rules are also satisfied.
- 5.3 It is essential that, in addition to the result of the BNG Metric, the assessment of biodiversity net gain takes into account the measures to be accommodated and implemented at the site to secure gains and betterment for biodiversity that the BNG Metric cannot take account of.
- 5.4 At this site it is advised that the following measures are also considered as part of the assessment of biodiversity net gain:
- Incorporation of opportunities for roosting bats at the new properties as, although the habitats are suitable for use by foraging bat species such as *Pipistrellus* species, there are no significant opportunities for roosting bats (particularly maternity roosts) at the site currently (this is considered to provide additionality);
 - Incorporation of opportunities for use by nesting birds at the developed site including in both the public open space by landscape planting and at the new properties. This includes a net increase in opportunities for specific species not currently able to breed at the site such as swift (a red-listed bird species⁶) and also house sparrow and starling (both red listed and Priority Species) at the new properties;
 - Eradication / control of invasive plant species from the site including the significant areas of Japanese Knotweed; and
 - Preparation and implementation of a Landscape and Ecological Management Plan (or similar) to secure long-term management of the retained and created habitats in accordance with conservation targets and objectives.

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7.0 APPENDIX 1: PHOTOGRAPHS AND CONDITION ASSESSMENTS

7.1 Photographs

- 7.1.1 Photographs of the on-site baseline habitats are presented in *2024-200 Land at Bealey Industrial Estate, Dumers Lane, Radcliffe M26 2QG Ecological Survey and Assessment* (ERAP (Consultant Ecologists) Ltd, 2024).
- 7.1.2 The photographs below show the off-site baseline habitat (modified grassland) at Radcliffe Moor Road.



Photos 1 and 2: Showing modified grassland at Radcliffe Moor Road (off-site habitat 1)

7.2 Condition Assessments of Baseline Habitats: On-site

Table 7.1: Condition Assessments for Urban Areas

Condition Assessment Criteria	Habitat 1: Bare ground beneath Willow (T18)
A. Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	x
B. The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	x
C. Invasive non-native plant species (listed on Schedule 9 of WCA1 ¹) and others which are to the detriment of native wildlife (using professional judgement) ² cover less than 5% of the total vegetated area ³ . <i>Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).</i>	✓
Additional Criteria – only applicable to OMH	
D. The site shows spatial variation, forming a mosaic of at least four early successional communities (a) to (h) PLUS bare substrate AND pools. (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland and (i) pools.	N/a
Additional Criteria – only applicable to Bioswale and SuDS	
E1. Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife ⁴ .	N/a
E2. The vegetation is comprised of plant species suited to wetland or riparian situations.	N/a
Additional Criterion – only applicable for Intensive green roofs	
F. The roof has a minimum of 50% native and non-native wildflowers. 70% of the roof area is soil and vegetation (including water features).	N/a
Additional Criterion – only applicable for Biodiverse green roofs	
G. The roof has a varied depth of 80 to 150 mm; at least 50% is at 150 mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers. <i>Note – to achieve Good condition some additional habitat, such as sand piles, stones, logs etc are present.</i>	N/a
If only 3 core Criteria Assessed (All except OMH, Bioswale, SuDS and green roofs):	
Good: Passes all 3 core criteria; AND Meets the requirements for Good condition within criterion C.	X
Moderate: Passes 2 core criteria; OR Passes 3 core criteria but does not meet the requirements for Good condition within criterion C.	X
Poor: Passes 1 or fewer of core criteria	✓
Results for Green roofs (requiring assessment of 4 criteria only - core criteria plus additional criterion specified for habitat type):	
Good - Passes all 3 core criteria; AND meets the requirements for Good condition within criterion C; AND Passes additional criterion relevant to specific habitat type (F or G).	N/a
Moderate - Passes 2 or 3 criteria; OR Passes 4 criteria but does not meet the requirements for Good condition within criterion C.	N/a
Poor - Passes 1 or fewer criteria	N/a
Results for Open mosaic habitat on previously developed land, Bioswale or SuDS (requiring assessment of 5 criteria - core criteria plus additional criteria specified for habitat type):	
Good - Passes all 3 core criteria; AND Meets the requirements for Good condition within criterion C; AND Passes all additional criteria relevant to specific habitat type (Group D or Group E).	N/a
Moderate - Passes 3 or 4 criteria; OR Passes 5 criteria but does not meet the requirements for Good condition within criterion C.	N/a
Poor - Passes 2 or fewer of 5 criteria.	N/a

Additional notes:

Footnote 1: *Wildlife and Countryside Act 1981 (as amended)*

Footnote 2: Sources of information about detrimental non-native species can be found on the GB Non-native Species Secretariat (GBNNS) website: Home » NNS (nonnativespecies.org) and Natural England Access to Evidence page should also be checked for up-to-date information: Horizon-scanning for invasive non-native plants in Great Britain - NECR053 (naturalengland.org.uk).

For criterion C – For green roof habitat types only – Buddleia (*Buddleja davidii*) should be assessed alongside Schedule 9 species. This species impairs the health of the local ecosystem and reduces the biodiversity potential of the roof. It is also a sign that a roof has not been planted and seeded correctly in subsequent years.

Footnote 3: Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4: Use professional judgement. Sources of information about non-native species that are not detrimental to native wildlife can be found on the GBNNS website: Alternative plants » NNS (nonnativespecies.org).

Table 7.2: Condition Assessments for Scrub

Condition Assessment Criteria	Habitat 6: Mixed Scrub 1	Habitat 7: Scrub 2	Habitat 8: Scrub 3 (through centre of site)	Habitat 9: Scrub 4	Habitat 10: Scrub 6	Habitat 11: Scrub 7
A. The scrub is a good representation of the habitat type – the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range). ¹ At least 80% of scrub is native, and there are at least three native woody species ² , with no single species comprising more than 75% of the cover, except Hazel (<i>Corylus avellana</i>), Common Juniper (<i>Juniperus communis</i>), Sea Buckthorn (<i>Hippophae rhamnoides</i>) or Box (<i>Buxus sempervirens</i>), which can be up to 100% cover.	✓	✓	x (Goat Willow > 75%)	x (Goat Willow > 75%)	✓	✓
B. Seedlings, saplings, young shrubs and mature (or ancient or veteran ³) shrubs are all present.	x	x	x	x	x	x
C. There is an absence of invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) and species indicative of sub-optimal condition ⁶ make up less than 5% of ground cover.	x (Japanese Knotweed)	x (Japanese Knotweed)	x (Japanese Knotweed)	x (Indian Balsam)	x	x
D. The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	✓	✓	✓	x	✓	x
E. There are clearings, glades or rides present within the scrub, providing sheltered edges.	x	x	✓	x	✓	x
Good: passes 5 criteria	x	x	x	x	x	x
Moderate: passes 3 or 4 criteria	x	x	x	x	✓	x
Poor: passes 2 or fewer criteria	✓	✓	✓	✓	x	✓

Additional Information:

Footnote 1 – Professional judgement should be used alongside the UKHab description.

Footnote 2 – Native woody species as defined and listed in the Hedgerow Survey Handbook: DEFRA (2007) *Hedgerow Survey Handbook: A standard procedure for local surveys in the UK. 2nd ed.* [online]. Defra, London. PB1195. Available from: Hedgerow Survey Handbook (publishing.service.gov.uk).

Footnote 3 - See gov.uk standing advice on ancient and veteran species. Available from *Keepers of time: ancient and native woodland and trees policy in England* (publishing.service.gov.uk) and *Ancient woodland, ancient trees and veteran trees: advice for making planning decisions* (www.gov.uk).

Footnote 4 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 5 – *Wildlife and Countryside Act 1981* (as amended)

Footnote 6 - Species indicative of sub-optimal condition for this habitat type may include: non-native conifers, Tree-of-heaven (*Alnus altissima*), Holm Oak (*Quercus ilex*), European Turkey Oak (*Quercus cerris*), Cherry Laurel (*Prunus laurocerasus*), Snowberry (*Symphoricarpos* spp.), Shalton (*Gaultheria shalton*), American Skunk Cabbage (*Lysichiton americanus*), Buddleia (*Buddleja* spp.), Cotoneaster (*Cotoneaster* spp.), Spanish Bluebell (*Hyacinthoides hispanica*) and Hybrid Bluebells (*Hyacinthoides x massartiana*). There may be additional relevant species local to the region and or site.

Table 7.3: Condition Assessments for Grassland Habitats (Medium, High and Very High Distinctiveness)

Condition Assessment Criteria	Habitat 13: Neutral grassland 1
A. The grassland is a good representation of the habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description)¹. <i>Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.</i>	x
B. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	x
C. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens².	✓
D. Cover of Bracken less than 20% and cover of scrub (including Bramble) less than 5%.	
E. Combined cover of species indicative of sub-optimal condition³ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species⁴ (as listed on Schedule 9 of WCA⁵) are present, this criterion is automatically failed.	x
Additional Group – non-acid grassland types only	
F. There are 10 or more vascular plant species per m² present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). <i>Note - this criterion is essential for achieving Good condition for non-acid grassland types only.</i>	x
Non-acid Grassland Types	
Good: passes 5 or 6 criteria, including essential criteria A and additional criterion F	x
Moderate: passes 3 to 5 criteria, including essential criterion A	x
Poor: passes 2 or fewer criteria; or passes 3 or 4 criteria excluding criterion A and F	✓
Additional Information: Footnote 1: Professional judgement should be used alongside the UKHab description. Footnote 2: For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover. Footnote 3: Species indicative of sub-optimal condition for this habitat type include: Creeping Thistle (<i>Cirsium arvense</i>), Spear Thistle (<i>Cirsium vulgare</i>), Curled Dock (<i>Rumex crispus</i>), Broad-leaved Dock (<i>Rumex obtusifolius</i>), Common Nettle (<i>Urtica dioica</i>), Creeping Buttercup (<i>Ranunculus repens</i>), Greater Plantain (<i>Plantago major</i>), White Clover (<i>Trifolium repens</i>), Cow Parsley (<i>Anthriscus sylvestris</i>). There may be additional relevant species local to the region and / or site. Footnote 4: Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judgement. Footnote 5: <i>Wildlife and Countryside Act 1981</i> (as amended)	

Table 7.4: Condition Assessments for Individual Trees / Groups of Trees

Tree / Group Reference	Species	A	B	C	D	E	F	Size Category	Total No. of Criterion Passed	Condition Assessment Result
T1	Ash	✓	✓	x	✓	x	✓	Small	4	Moderate
T2	Goat Willow	✓	✓	x	✓	x	✓	Medium	4	Moderate
T3	Goat Willow	✓	✓	x	✓	x	✓	Medium	4	Moderate
T4	Goat Willow	✓	✓	x	✓	x	✓	Medium	4	Moderate
T5	Silver Birch	✓	✓	x	✓	x	✓	Small	4	Moderate
T6	Goat Willow	✓	✓	x	✓	x	✓	Small	4	Moderate
T7	Ash	✓	✓	x	✓	x	✓	Small	4	Moderate
T8	Ash	✓	✓	x	✓	x	✓	Small	4	Moderate
T9	Goat Willow	✓	✓	x	✓	✓ Ivy	✓	Medium	5	Good
T10	Silver Birch Goat Willow	✓	✓	x	✓	x	✓	Small	4	Moderate
T11	Ash	✓	✓	x	x	x	x	Small	2	Poor
T12	Pine	x	✓	x	✓	x	✓	Small	3	Moderate
T13	Sycamore	x	✓	x	✓	x	✓	Small	3	Moderate
T14 [Retained]	Ash	✓	✓	x	✓	x	x	Small	3	Moderate
T15	Cherry Hawthorn	x	✓	x	✓	x	x	Small	2	Poor
T16	Hawthorn	✓	✓	x	✓	x	x	Small	3	Moderate
T17	Ash	✓	✓	x	✓	x	x	Small	3	Moderate
T18	Goat Willow	✓	✓	x	✓	x	✓	Small	4	Moderate
T19	Elder	✓	✓	x	x	✓ Ivy	✓	Small	4	Moderate
T20	Ash	✓	✓	x	✓	x	✓	Small	4	Moderate
T21	Sycamore	x	✓	x	✓	x	✓	Small	3	Moderate
T22	Goat Willow	✓	✓	x	✓	x	✓	Medium	4	Moderate
T23	Ash	✓	✓	x	x	x	x	Small	2	Poor
T24 [Retained]	Wych Elm	✓	✓	x	x	x	x	Small	2	Poor
Good: Passes 5 or 6 criteria										
Moderate: Passes 3 or 4 criteria										
Poor: Passes 2 or fewer criteria										

Condition Assessment Criteria

- A.** The tree is a native species (or more than 70% within the block are native species)
- B.** Tree canopy is predominantly continuous with gaps in canopy cover making up less than 10% of total area and no individual gap being more than 5 metres wide. Individual trees automatically pass this criterion.
- C.** The tree is mature (or more than 50% within the block are mature). See gov.uk standing advice on ancient and veteran trees, available from:
Keepers of time: ancient and native woodland and trees policy in England (publishing.service.gov.uk) and *Ancient woodland, ancient trees and veteran trees: advice for making planning decisions* (www.gov.uk).
 Enhancement of this habitat type is only possible by improving the habitat so that it meets Criteria B, D and F. It is not possible or appropriate to enhance individual trees through meeting just one of those Criteria, nor by meeting Criteria A, C or E.
- D.** There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.
- E.** Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.
- F.** More than 20% of the tree canopy area is oversailing vegetation beneath

7.3 Plant Species List and Condition Assessments of Baseline Habitats: Off-site (land at Radcliffe Moor Road)

Table 7.5: Plant Species List for Modified Grassland at Radcliffe Moor Road

Scientific Name	Common Name	DAFOR ¹	Cover
<i>Alopecurus pratensis</i>	Meadow Foxtail	F	10%
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	F/LA	20%
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	R	<1%
<i>Cerastium fontanum</i>	Common Mouse-ear	O	<1%
<i>Cirsium arvense</i>	Creeping Thistle	O	<1%
<i>Cynosurus cristatus</i>	Crested Dog's-tail	LA	5%
<i>Dactylis glomerata</i>	Cock's-foot	O	<1%
<i>Holcus lanatus</i>	Yorkshire-fog	A*	40%
<i>Lathyrus pratensis</i>	Meadow Vetchling	VLA	<1%
<i>Lolium perenne</i>	Perennial Rye-grass	LF	5%
<i>Matricaria discoidea</i>	Pineappleweed	VLF	<1%
<i>Persicaria aviculare</i>	Knotgrass	VLA	<1%
<i>Plantago lanceolata</i>	Ribwort Plantain	O	<1%
<i>Poa pratensis</i>	Smooth Meadow-grass	F	10%
<i>Poa trivialis</i>	Rough Meadow-grass	F	10%
<i>Ranunculus acris</i>	Meadow Buttercup	O	<1%
<i>Ranunculus repens</i>	Creeping Buttercup	F*	5%
<i>Rubus fruticosus</i> agg.	Bramble	R	<1%
<i>Rumex acetosa</i>	Common Sorrel	O	<1%
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O	<1%
<i>Trifolium repens</i>	White Clover	VLA	<1%
<i>Tripleurospermum inodorum</i>	Scentless Mayweed	VLA	<1%
<i>Vicia cracca</i>	Tufted Vetch	LF	2%
<i>Vicia sepium</i>	Bush Vetch	LVA	<1%
¹ Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species			

Table 7.6: Condition Assessments for Modified Grassland at Radcliffe Moor Road

Condition Assessment Criteria	Off-site 1: Modified grassland
A. There are 6 to 8 vascular plant species per m2 present, including at least 2 forbs (this may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	✓
B. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	x
C. Any scrub present accounts for less than 20% of total grassland area (some scattered scrub such as Bramble may be present). Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	✓
D. Physical damage evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	✓
E. Cover of bare ground between 1% and 10%, including localised areas, for example, rabbit warrens ² .	x
F. Cover of Bracken less than 20%.	✓
G. There is an absence of invasive non-native species ³ (as listed on Schedule 9 of WCA ⁴).	✓
Good: Passes 6 or 7 criteria including essential criterion A	x
Moderate: Passes 4 or 5 criteria including essential criterion A	✓
Poor: Passes 3 or fewer criteria OR passes 4 to 6 criteria, but failing criterion A	x

Footnote 1 – Creeping Thistle (*Cirsium arvense*), Spear Thistle (*Cirsium vulgare*), Curled Dock (*Rumex crispus*), Broad-leaved Dock (*Rumex obtusifolius*), Common Nettle (*Urtica dioica*), Creeping Buttercup (*Ranunculus repens*), Greater Plantain (*Plantago major*), White Clover (*Trifolium repens*) and Cow Parsley (*Anthriscus sylvestris*).

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.

Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4 – *Wildlife and Countryside Act 1981* (as amended).

7.4 Target Condition Assessments of Created Habitats: On-site

Table 7.7: Target Condition Assessment for Modified Grassland

Condition Assessment Criteria	Habitat D: Modified grassland
A. There are 6 to 8 vascular plant species per m2 present, including at least 2 forbs (this may include those listed in Footnote 1). Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	✓
B. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	x
C. Any scrub present accounts for less than 20% of total grassland area (some scattered scrub such as Bramble may be present). Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	✓
D. Physical damage evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	✓
E. Cover of bare ground between 1% and 10%, including localised areas, for example, rabbit warrens ² .	✓
F. Cover of Bracken less than 20%.	✓
G. There is an absence of invasive non-native species ³ (as listed on Schedule 9 of WCA ⁴).	✓
Good: Passes 6 or 7 criteria including essential criterion A	✓
Moderate: Passes 4 or 5 criteria including essential criterion A	x
Poor: Passes 3 or fewer criteria OR passes 4 to 6 criteria, but failing criterion A	x

Footnote 1 – Creeping Thistle (*Cirsium arvense*), Spear Thistle (*Cirsium vulgare*), Curled Dock (*Rumex crispus*), Broad-leaved Dock (*Rumex obtusifolius*), Common Nettle (*Urtica dioica*), Creeping Buttercup (*Ranunculus repens*), Greater Plantain (*Plantago major*), White Clover (*Trifolium repens*) and Cow Parsley (*Anthriscus sylvestris*).

Footnote 2 – For example, this could include small, scattered areas of bare ground allowing establishment of new species, or localised patches where not exceeding 10% cover.

Footnote 3 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 4 – *Wildlife and Countryside Act 1981* (as amended).

Table 7.8: Target Condition Assessment for Other Neutral Grassland

Condition Assessment Criteria	Habitat E: Other Neutral Grassland
A. The grassland is a good representation of the habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description) ¹ . <i>Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.</i>	✓
B. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	X
C. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens ² .	X
D. Cover of Bracken less than 20% and cover of scrub (including Bramble) less than 5%.	✓
E. Combined cover of species indicative of sub-optimal condition ³ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) are present, this criterion is automatically failed.	✓
Additional Group – non-acid grassland types only	
F. There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). <i>Note - this criterion is essential for achieving Good condition for non-acid grassland types only.</i>	X
Acid Grassland Types	
Good: passes 5 criteria	N/a
Moderate: passes 3 or 4 criteria	N/a
Poor: passes 2 or fewer criteria	N/a
Non-acid Grassland Types	
Good: passes 5 or 6 criteria, including essential criteria A and additional criterion F	X
Moderate: passes 3 to 5 criteria, including essential criterion A	✓
Poor: passes 2 or fewer criteria; or passes 3 or 4 criteria excluding criterion A and F	X

Additional Information:

Footnote 1: Professional judgement should be used alongside the UKHab description.

Footnote 2: For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.

Footnote 3: Species indicative of sub-optimal condition for this habitat type include:

Creeping Thistle (*Cirsium arvense*), Spear Thistle (*Cirsium vulgare*), Curled Dock (*Rumex crispus*), Broad-leaved Dock (*Rumex obtusifolius*), Common Nettle (*Urtica dioica*), Creeping Buttercup (*Ranunculus repens*), Greater Plantain (*Plantago major*), White Clover (*Trifolium repens*), Cow Parsley (*Anthriscus sylvestris*). There may be additional relevant species local to the region and / or site.

Footnote 4: Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judgement.

Footnote 5: *Wildlife and Countryside Act 1981* (as amended)

Table 7.9: Target Condition Assessment for Individual Trees / Groups of Trees

Tree / Group Reference	Species	A	B	C	D	E	F	Size Category	Total No. of Criterion Passed	Condition Assessment Result
Habitat E: New Native Trees	-	✓	✓	x	✓	x	✓	Small	4	Moderate
Habitat E: New Non-Native Trees	-	x	✓	x	✓	x	✓	Small	3	Moderate
Good: Passes 5 or 6 criteria										
Moderate: Passes 3 or 4 criteria										
Poor: Passes 2 or fewer criteria										

Condition Assessment Criteria
A. The tree is a native species (or more than 70% within the block are native species)
B. Tree canopy is predominantly continuous with gaps in canopy cover making up less than 10% of total area and no individual gap being more than 5 metres wide. Individual trees automatically pass this criterion.
C. The tree is mature (or more than 50% within the block are mature). See gov.uk standing advice on ancient and veteran trees, available from: <i>Keepers of time: ancient and native woodland and trees policy in England</i> (publishing.service.gov.uk) and <i>Ancient woodland, ancient trees and veteran trees: advice for making planning decisions</i> (www.gov.uk). Enhancement of this habitat type is only possible by improving the habitat so that it meets Criteria B, D and F. It is not possible or appropriate to enhance individual trees through meeting just one of those Criteria, nor by meeting Criteria A, C or E.
D. There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.
E. Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.
F. More than 20% of the tree canopy area is oversailing vegetation beneath

Table 7.10: Target Condition Assessment for New Hedgerows

Condition Assessment Criteria	Habitat G: Native Hedgerows
A1. Height: >1.5m average along length The average height of woody growth estimated from base of stem to the top of shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of 4 years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is > 1.5 m height).	x
A2. Width: >1.5m average along length. The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (e.g. Blackthorn suckers) are only included in the width estimate when they >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of 4 years (if undertaken according to good practice ⁴)	x
B1. Gap - hedge base. Gap between ground and base of canopy is less than 0.5m, for more than 90% of length (unless line of trees). This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (e.g. a Hazel dominated hedgerow or where the hedgerow is affected by shading from other vegetation such as woodland, see page 65 of <i>Hedgerow Survey Handbook</i> (Defra, 2007)).	✓
B2. Gap - hedge canopy continuity. Gaps make up less than 10% of total length and no canopy gaps are greater than 5m. Gates and access points are not subject to the greater than 5m criterion. This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall 'gappiness', but are not subject to the greater than 5 m criterion (as this is the typical size of a gate).	✓
C1. Undisturbed ground and perennial vegetation. More than 1m width ground with perennial herbaceous vegetation for more than 90% of the hedgerow length, as measured from outer edge of the hedgerow, and is present on at least 1 side of the hedgerow. This is the level of disturbance (excluding wildlife disturbance) at the base of the hedge. Undisturbed ground should be present for at least 90% of the hedgerow length, greater than 1m in width and must be present along at least one side of the hedge. This criterion recognises the value of the hedge base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	✓
C2. Nutrient-enriched perennial vegetation. Plant species indicative of nutrient enrichment of soils do not dominate more than 20% cover of the ground area of undisturbed ground. The indicator species used are nettles (<i>Urtica</i> spp.), Cleavers (<i>Galium aparine</i>) and docks (<i>Rumex</i> spp.). Their presence, either singly or together, should not exceed the 20% cover threshold.	x
D1. Invasive and neophyte species. More than 90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA) and recently introduced species. Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website, as well as the BSBI website where the 'Online Atlas of the British and Irish Flora' contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website.	✓
D2. Current damage. More than 90% of the hedgerow or undisturbed ground is free of damaged caused by human activities. This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (e.g. excessive hedge cutting).	✓
Additional group – ONLY if trees are present	
E1. Tree Class There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient ⁸), and there is on average at least one mature, ancient or veteran tree present per 20 to 50m of hedgerow. This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.	N/a

Condition Assessment Criteria	Habitat G: Native Hedgerows
E2. Tree health At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity. This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.	N/a
Hedgerows Without Trees	
Good: No more than 2 failures in total; AND no more than 1 in any functional group.	x
Moderate: No more than 4 failures in total; AND does not fail both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & C2 = Moderate condition).	✓
Poor: Fails a total of more than 4 attributes; OR fails both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & B2 = Poor condition).	x
Hedgerows With Trees	
Good: No more than 2 failures in total; AND no more than 1 failure in any functional group.	N/a
Moderate: No more than 5 failures in total; AND does not fail both attributes in more than one functional group (e.g. fails attributes A1, A2, B1, C2 & E1 = Moderate condition).	N/a
Poor: Fails a total of more than 5 attributes; OR fails both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & B2 = Poor condition).	N/a

7.5 Target Condition Assessment for Off-site Habitats

Table 7.11: Target Condition Assessment for Other Neutral Grassland

Condition Assessment Criteria	Off-site Habitat A: Other Neutral Grassland
A. The grassland is a good representation of the habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description) ¹ . <i>Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.</i>	✓
B. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	✓
C. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens ² .	x
D. Cover of Bracken less than 20% and cover of scrub (including Bramble) less than 5%.	✓
E. Combined cover of species indicative of sub-optimal condition ³ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) are present, this criterion is automatically failed.	✓
Additional Group – non-acid grassland types only	
F. There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). <i>Note - this criterion is essential for achieving Good condition for non-acid grassland types only.</i>	x
Acid Grassland Types	
Good: passes 5 criteria	N/a
Moderate: passes 3 or 4 criteria	N/a
Poor: passes 2 or fewer criteria	N/a
Non-acid Grassland Types	
Good: passes 5 or 6 criteria, including essential criteria A and additional criterion F	x
Moderate: passes 3 to 5 criteria, including essential criterion A	✓
Poor: passes 2 or fewer criteria; or passes 3 or 4 criteria excluding criterion A and F	x

Additional Information:

Footnote 1: Professional judgement should be used alongside the UKHab description.

Footnote 2: For example, this could include small, scattered areas of bare ground allowing for plant colonisation, or localised patches not exceeding 5% cover.

Footnote 3: Species indicative of sub-optimal condition for this habitat type include:

Creeping Thistle (*Cirsium arvense*), Spear Thistle (*Cirsium vulgare*), Curled Dock (*Rumex crispus*), Broad-leaved Dock (*Rumex obtusifolius*), Common Nettle (*Urtica dioica*), Creeping Buttercup (*Ranunculus repens*), Greater Plantain (*Plantago major*), White Clover (*Trifolium repens*), Cow Parsley (*Anthriscus sylvestris*). There may be additional relevant species local to the region and / or site.

Footnote 4: Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, by applying professional judgement.

Footnote 5: *Wildlife and Countryside Act 1981* (as amended)

Table 7.12: Target Condition Assessment for Mixed Scrub

Condition Assessment Criteria	Off-site Habitat B: Mixed Scrub
A. The scrub is a good representation of the habitat type – the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range). ¹ At least 80% of scrub is native, and there are at least three native woody species ² , with no single species comprising more than 75% of the cover, except Hazel (<i>Corylus avellana</i>), Common Juniper (<i>Juniperus communis</i>), Sea Buckthorn (<i>Hippophae rhamnoides</i>) or Box (<i>Buxus sempervirens</i>), which can be up to 100% cover.	✓
B. Seedlings, saplings, young shrubs and mature (or ancient or veteran ³) shrubs are all present.	✓
C. There is an absence of invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) and species indicative of sub-optimal condition ⁶ make up less than 5% of ground cover.	✓
D. The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	✓
E. There are clearings, glades or rides present within the scrub, providing sheltered edges.	✓
Good: passes 5 criteria	✓
Moderate: passes 3 or 4 criteria	x
Poor: passes 2 or fewer criteria	x

Additional Information:

Footnote 1 – Professional judgement should be used alongside the UKHab description.

Footnote 2 – Native woody species as defined and listed in the Hedgerow Survey Handbook: DEFRA (2007) *Hedgerow Survey Handbook: A standard procedure for local surveys in the UK. 2nd ed.* [online]. Defra, London. PB1195. Available from: Hedgerow Survey Handbook (publishing.service.gov.uk).

Footnote 3 – See gov.uk standing advice on ancient and veteran species. Available from *Keepers of time: ancient and native woodland and trees policy in England* (publishing.service.gov.uk) and *Ancient woodland, ancient trees and veteran trees: advice for making planning decisions* (www.gov.uk).

Footnote 4 – Assess this for each distinct habitat parcel. If the distribution of invasive non-native species varies across the habitat, split into parcels accordingly, applying a buffer zone around the invasive non-native species with a size relative to its risk of spread into adjacent habitat, using professional judgement.

Footnote 5 – *Wildlife and Countryside Act 1981* (as amended)

Footnote 6 - Species indicative of sub-optimal condition for this habitat type may include: non-native conifers, Tree-of-heaven (*Alnus altissima*), Holm Oak (*Quercus ilex*), European Turkey Oak (*Quercus cerris*), Cherry Laurel (*Prunus laurocerasus*), Snowberry (*Symphoricarpos* spp.), Shallon (*Gaultheria shallon*), American Skunk Cabbage (*Lysichiton americanus*), Buddleia (*Buddleja* spp.), Cotoneaster (*Cotoneaster* spp.), Spanish Bluebell (*Hyacinthoides hispanica*) and Hybrid Bluebells (*Hyacinthoides x massartiana*). There may be additional relevant species local to the region and or site.

Table 7.13: Target Condition Assessment for New Trees

Tree / Group Reference	Species	A	B	C	D	E	F	Size Category	Total No. of Criterion Passed	Condition Assessment Result
Off-site Habitat C: New Native Trees	-	✓	✓	x	✓	x	✓	Small	4	Moderate
Off-site Habitat C: New Non-native Trees	-	x	✓	x	✓	x	✓	Small	3	Moderate
Good: Passes 5 or 6 criteria										
Moderate: Passes 3 or 4 criteria										
Poor: Passes 2 or fewer criteria										

Condition Assessment Criteria
A. The tree is a native species (or more than 70% within the block are native species)
B. Tree canopy is predominantly continuous with gaps in canopy cover making up less than 10% of total area and no individual gap being more than 5 metres wide. Individual trees automatically pass this criterion.
C. The tree is mature (or more than 50% within the block are mature). See gov.uk standing advice on ancient and veteran trees, available from: <i>Keepers of time: ancient and native woodland and trees policy in England</i> (publishing.service.gov.uk) and <i>Ancient woodland, ancient trees and veteran trees: advice for making planning decisions</i> (www.gov.uk). Enhancement of this habitat type is only possible by improving the habitat so that it meets Criteria B, D and F. It is not possible or appropriate to enhance individual trees through meeting just one of those Criteria, nor by meeting Criteria A, C or E.
D. There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.
E. Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.
F. More than 20% of the tree canopy area is oversailing vegetation beneath

8.0 APPENDIX 2 : FIGURES

Figure 1: Aerial Image to Show Site and Surrounds including Sites of Biological Importance (SBI) and Ponds

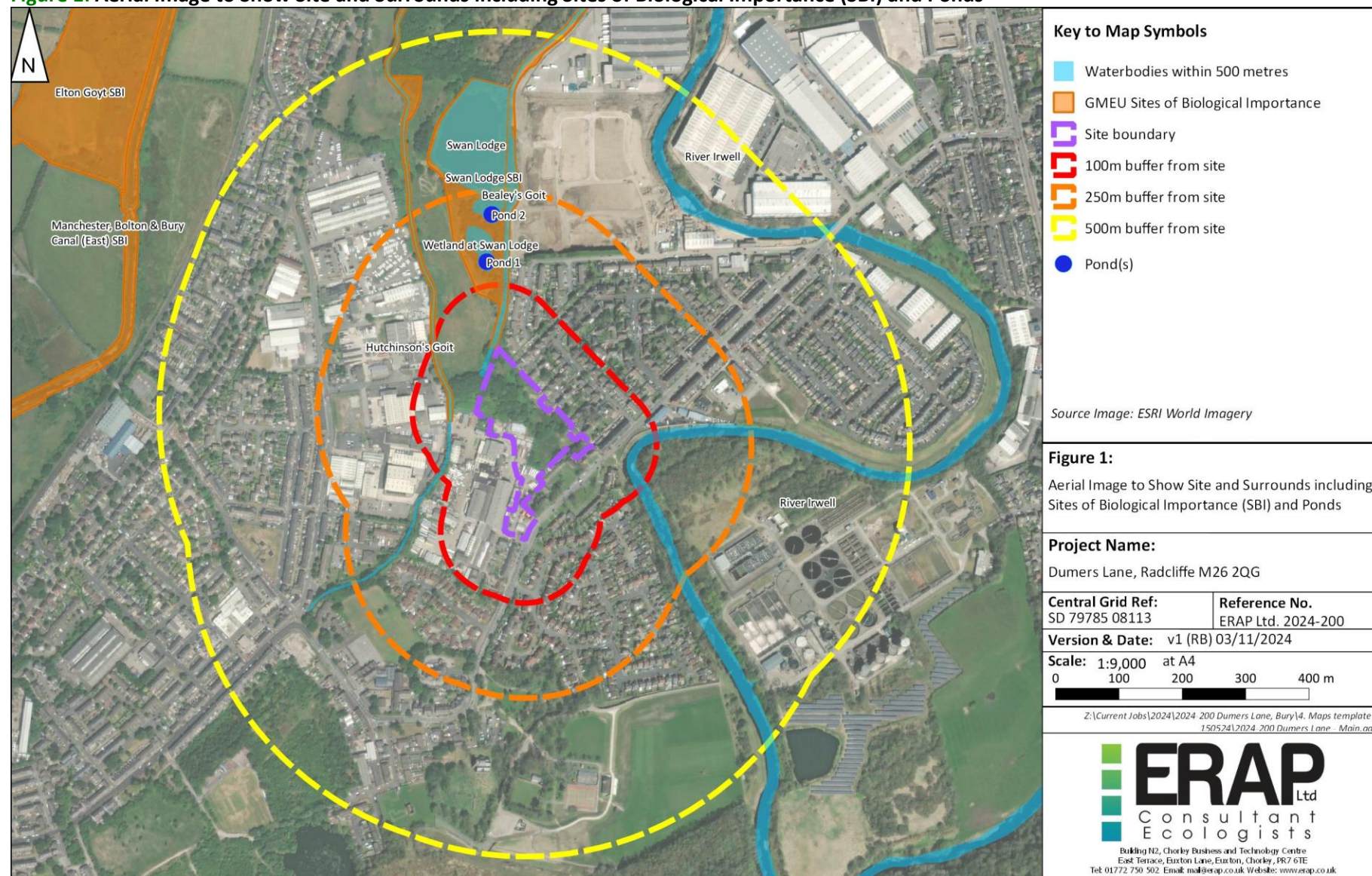


Figure 2: Phase 1 Habitat Survey Map

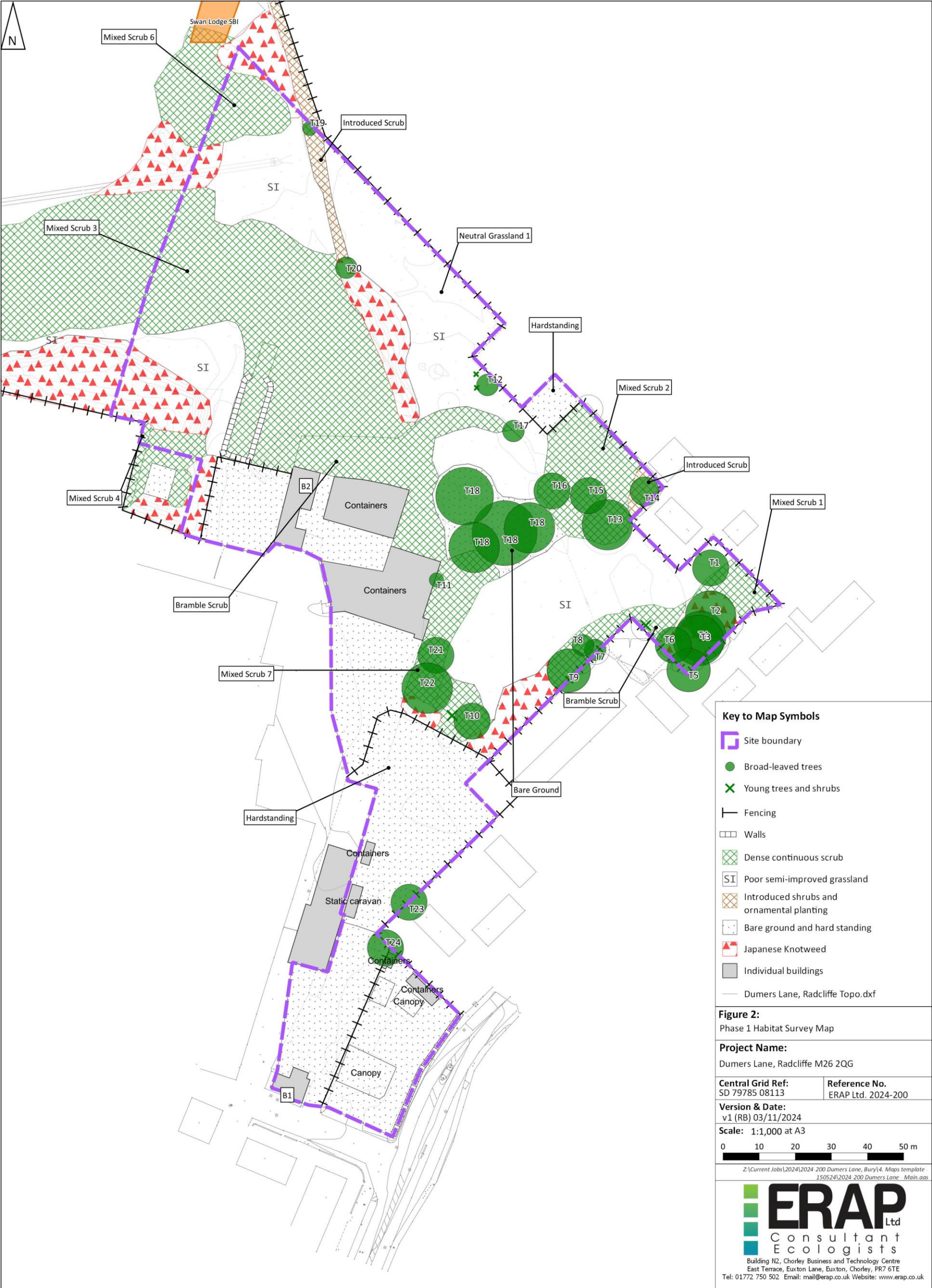


Figure 3: UKHab Map: Baseline Habitats

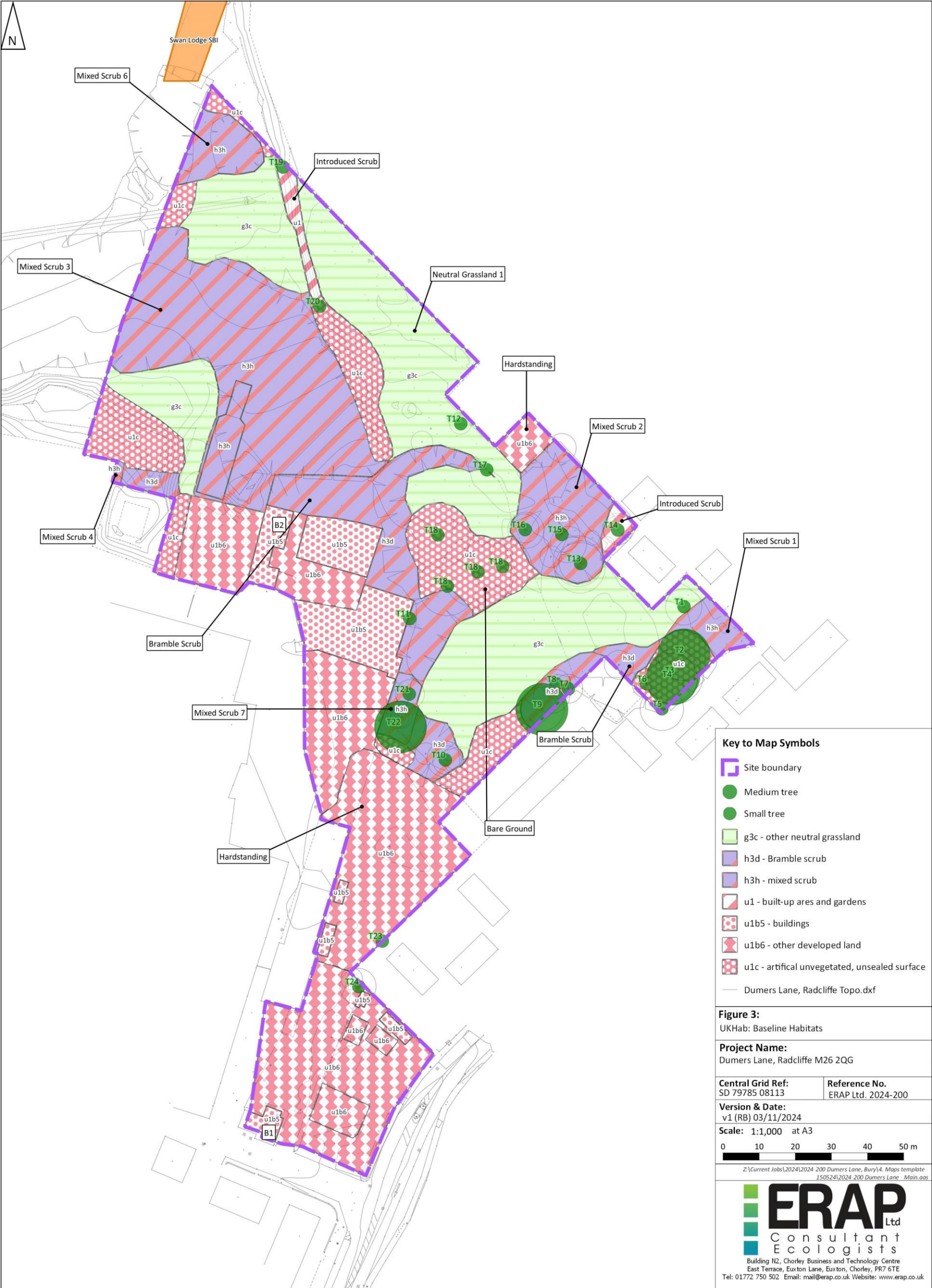


Figure 4: UKHab Map: Post-development Habitats (on-site)

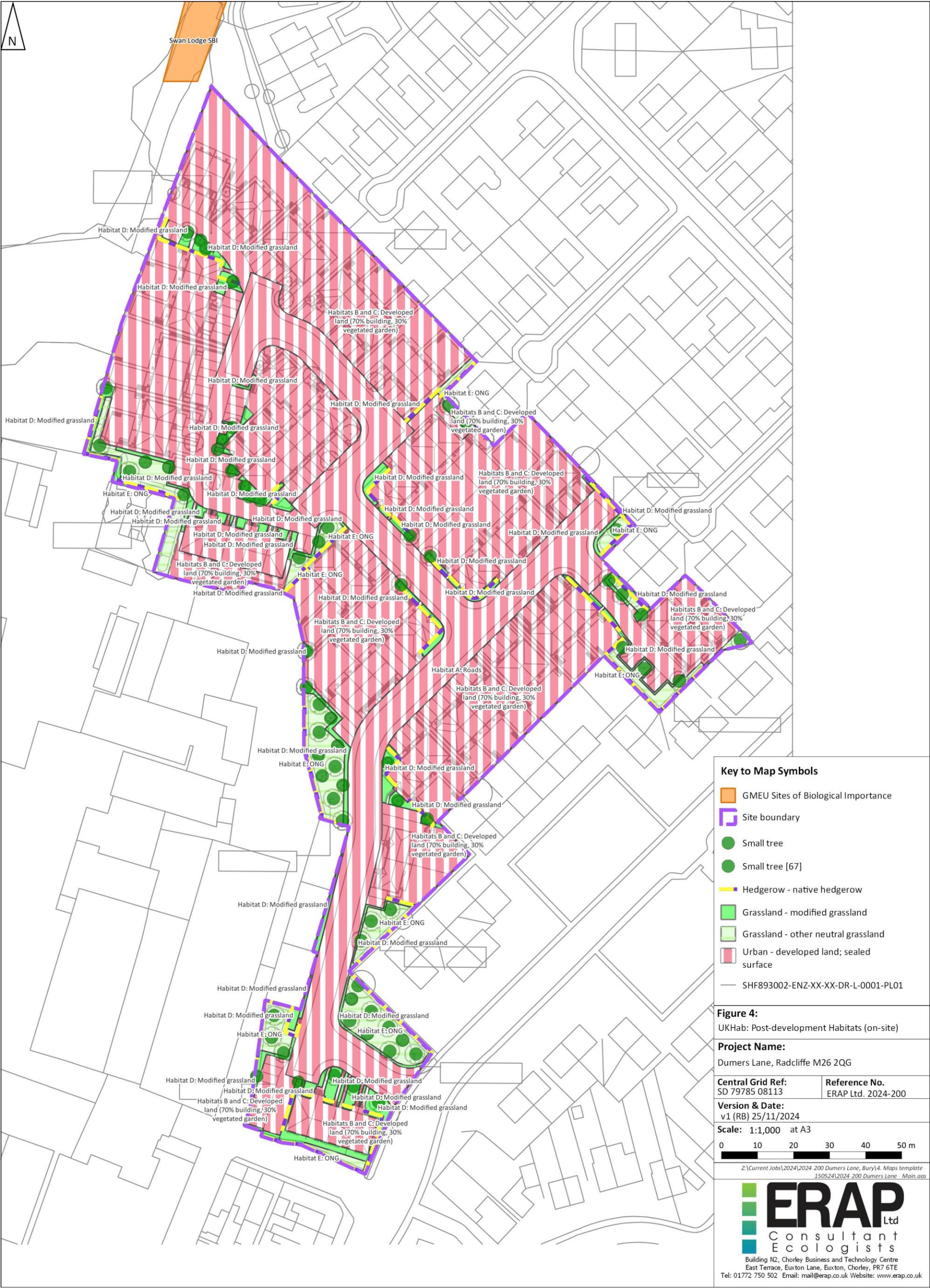


Figure 5: Aerial Image and UKHab Plan to Show Off-site BNG Area



Figure 6: UKHab: Post-development Habitats (off-site)



9.0 APPENDIX 3: PLAN TO SHOW ON-SITE AREAS TO BE MANAGED

LAND OFF DUMERS LANE, RADCLIFFE

