

Plot W at Silver Hill Farm, Kingsway, Broad Lane, Rochdale OL16 4PU

ASSESSMENT OF BIODIVERSITY NET GAIN

June 2022

[ERAP (Consultant Ecologists) Ltd ref: 2019-300f]

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Document Control

Survey Type:	Surveyors	Survey Date(s)
Updated habitat survey and Condition Assessment	Brian Robinson B.Sc. (Hons) MCIEEM Senior Ecologist	16 th December 2021 and 10 th June 2022
Reporting	Personnel	Date
Author	Brian Robinson B.Sc. (Hons) MCIEEM Senior Ecologist	5 th January 2022
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Checked (Version 1)	Catie Haworth B.Sc. (Hons) M.Sc. Ecologist	6 th January 2022
Checked (Version 2)	Amy Sharples B.Sc. (Hons) M.Sc. ACIEEM Senior Ecologist	26 th May 2022
Checked (Version 3)	Catie Haworth	29 th June 2022
Issued	Brian Robinson	Version 1: 12 th January 2022 Version 2: 14 th April 2022 Version 3: 27 th June 2022
Report issued to	David Wilson Homes	
Version Number	2: Version 1 updated 6th April 2022. The assessment was revised as a spatially referenced plan was made available and a revision to the proposed development (in accordance with <i>Plot – W, Kingsway Rochdale: Sketch 19 Drawing Ref SK19</i> (Barratt/David Wilson Homes, 2021) was required. 3: Version 2 updated 27th June 2022. The assessment was revised to reflect the most recent landscape planting plan proposed for the site and to update the version of the metric used (note that updated condition assessments in accordance with version 3.1 of the metric were completed to inform this assessment).	

1.0 INTRODUCTION

- 1.1 ERAP (Consultant Ecologists) Ltd was commissioned by David Wilson Homes to carry out works to complete a Biodiversity Net Gain (BNG) assessment of Plot W, Silver Hill Farm, Kingsway, Broad Lane, Rochdale OL16 4PU (hereafter referred to as the 'site'). The assessment was requested to inform proposals to develop the site to housing.
- 1.2 The Ordnance Survey (OS) grid reference at the centre of the 2.39 hectares¹ site is SD 91210 11228. An aerial image of the site and its surrounding habitats is appended at **Figure 1** (source image: ESRI World Imagery).
- 1.3 In accordance with Chapter 15, paragraph 180(d) of the *National Planning Policy Framework* (NPPF) (Ministry of Housing, Communities and Local Government, 2021):

'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'.
- 1.4 This report has been prepared to accompany a completed assessment of BNG using *The Biodiversity Metric 3.1: Auditing and accounting for biodiversity Calculation Tool* (Natural England, 2022); the key findings of the excel worksheet, which is provided as a separate document (*ERAP Ltd 2019-300f Biodiversity Metric 3.1 Calculation Tool 27.06.22*, hereafter the 'BNG Worksheet'), are presented within this report.

¹ The total site area has been calculated by ERAP (Consultant Ecologists) Ltd using a spatially referenced .DWG file provided by Barratt & David Wilson Homes North West

2.0 METHODS AND APPROACH

2.1 Vegetation and Habitats

- 2.1.1 2019-300g Kingsway Parcel, Broad Lane, Rochdale OL15 4NZ: Ecological Survey and Assessment (ERAP (Consultant Ecologists) Ltd, 2022), hereafter the 'ecology report', has been used to inform the ecological baseline in terms of the habitats present within the site. *Kingsway Road, Rochdale OL16 4PR: Arboricultural Impact Assessment Ref. P.1027.18* (Ascerta, 2018) has also been used to inform the assessment.
- 2.1.2 An initial survey completed at the site by ERAP (Consultant Ecologists) Ltd was updated in December 2021 and June 2022. The updated surveys included the completion of Habitat Condition Assessments at each habitat within the site, and an assessment of each habitat in accordance with the UK Habitats Classification / UKHab, in order that appropriate BNG habitat types could be assigned for the metric.
- 2.1.3 The surveys were completed by Brian Robinson B.Sc. (Hons) MCIEEM on 16th December 2021 and 10th June 2022. Conditions were dry on both surveys with a light air (Beaufort scale 1); air temperatures were 10°C on 16th December and 19°C on 10th June.
- 2.1.4 Habitats within the site were assessed in accordance with the UK Habitats Classification / UKHab (Butcher, et al., 2020). The UKHab has been designed to function at two scales: fine scale (25m² or 5 metres length) and large scale (400m² or 20 metres length). It has been considered for the purposes of this survey that the fine scale of 25m² or 5 metres length is appropriate.
- 2.1.5 Condition Assessments of each habitat in accordance with those presented in *The Biodiversity Metric 3.1: habitat condition assessment sheets with instructions* (Natural England, 2022) have been completed.

2.2 Evaluation Methods, Parameters and Rules Applied

Habitats and Assessment

- 2.2.1 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).
- 2.2.2 The BNG Assessment tool used is *The Biodiversity Metric 3.1 (JP039)* (Natural England, 2022). Condition Assessments for each of the habitats present within the site have been taken from *The Biodiversity Metric 3.1: habitat condition assessment sheets with instructions* (Natural England, 2022).
- 2.2.3 On site habitat mapping was assisted via use of GPS technology and QField on-site mapping software, using *Proposed Development, Broad Lane, Rochdale: Topographical Survey 02043/01 Rev. B* (Geomatic Surveys Ltd, 2018) and ESRI World Imagery as base plans.
- 2.2.4 A spatially referenced .DXF file of *Plot – W, Kingsway Rochdale: Sketch 21 Drawing Ref SK21* (DLA Design, 2022), hereafter the 'planning layout', was provided to ERAP (Consultant Ecologists) Ltd and had been used to calculate the baseline habitats within the site. The areas and lengths of the proposed habitats have been calculated from a georeferenced copy of *Kingsway, Rochdale: Landscape Masterplan GL16870 01B* (Golby + Luck, 2022), hereafter the 'landscape masterplan'.
- 2.2.5 Vegetated gardens have been included in the post-development calculation. It is recognised that there is limited control over what happens to the gardens in the long term, and vegetated gardens are scored

accordingly in the BNG metric. This is in accordance with the guidance in relation to gardens issued during the Greater Manchester Biodiversity Unit Webinar².

3.0 BASELINE CONDITIONS

3.1 Existing Ecological Baseline and Assessment of Habitat Types, Areas and Condition Assessments

3.1.1 **Tables 3.1 and 3.2** below provide a summary of the habitats present, their condition assessment result and their area / length within the site. Full Condition Assessments for each habitat are appended at **Section 6.1**, and photographs of each habitat are appended at **Section 6.2**.

3.1.2 Figures are appended at **Section 6.3**; an aerial image of the site is presented at **Figure 1**, and an updated Phase 1 Habitat and Vegetation Map is appended at **Figure 2**. A plan showing the baseline habitats using UKHab symbology is appended at **Figure 3**, and a plan showing the final site layout (with assumptions highlighted) is presented at **Figure 4**.

3.1.3 Please note that a direct translation between habitat types presented in Phase 1 Habitat surveys, UKHab habitat types and the habitats presented in the BNG metric is not always possible. Where applicable, the most appropriate corresponding habitat types with the current BNG metric to reflect the habitats at the site has been included with justification as appropriate.

Table 3.1: Summary of Area-based Habitats within Site

Habitat and Photo References	UK Habitat Classification Type	BNG Habitat Equivalent	Phase 1 Habitat Equivalent	Condition Assessment	Area (ha)
Habitat 1 Plantation woodland at site boundary (Photos 1 and 2)	w1h5 other woodland; mixed; mainly broadleaved with the following secondary codes: 36 plantation, 77 neglected (unmanaged for 3 to 10 years) and 56 young trees - planted.	Woodland and forest - other woodland; mixed	A1.1.2 Broadleaved woodland - plantation	Moderate	0.46
Habitat 2 Tall-herb vegetation in yard (Photo 3)	g3c neutral grassland with the following secondary code: 16 tall herb	Grassland - other neutral grassland	C31 Other tall-herb and fern – tall ruderal	Poor	0.03
Habitat 3 Grassland in yard (Photo 4)	g3c5 <i>Arrhenatherum</i> (Oat-grass) neutral grassland with the following secondary codes: and 10 scattered scrub	Grassland - other neutral grassland	B6 Poor semi-improved grassland	Poor	0.04

² Advice provided by Natural England in a recent (February 2021) Question and Answer Session on the Greater Manchester Biodiversity Unit 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]' (Balfour Beatty / WSP / CIEEM , 2021)

Habitat and Photo References	UK Habitat Classification Type	BNG Habitat Equivalent	Phase 1 Habitat Equivalent	Condition Assessment	Area (ha)
Habitat 4 Concrete hard standing and buildings in yard (including colonising ruderal herbs) (Photos 5 and 6)	u1b6 other developed land with the following secondary codes: 17 ruderal / ephemeral.	Urban - developed land, sealed surface	J3 Built up areas and J3.6 Buildings	N/A	0.20
Habitat 5 Tall-herb vegetation within unmanaged grassland area (Photo 7)	g3c neutral grassland with the following secondary codes: 16 tall herb.	Grassland - other neutral grassland	C31 Other tall-herb and fern – tall ruderal	Poor	0.52
Habitat 6 Unmanaged grassland area (Photo 8)	g3c5 Arrhenatherum (Oat-grass) neutral grassland with the following secondary codes: 10 scattered scrub, 16 tall herb, 161 tall or tussocky sward and 77 neglected (unmanaged for 3 to 10 years).	Grassland - other neutral grassland	B6 Poor semi-improved grassland	Poor	0.62
Habitat 7 Marshy grassland (Photo 9)	g3c other neutral grassland with the following secondary codes: 10 scattered scrub, 16 tall herb, 14 scattered rushes, 161 tall or tussocky sward, 77 neglected (unmanaged for 3 to 10 years) and 119 seasonally wet.	Grassland - other neutral grassland	B5 Marshy grassland	Moderate	0.30
Habitat 8 Bramble scrub (Photo 10)	h3d Bramble scrub with the following secondary codes: 77 neglected (unmanaged for 3 to 10 years).	Heathland and shrub - Bramble scrub	A2 Scrub	Poor	0.08
Habitat 9 Mixed scrub (Photo 11)	h3h mixed scrub with the following secondary codes: 77 neglected (unmanaged for 3 to 10 years).	Heathland and shrub - mixed scrub	A2 Scrub	Poor	0.14
Total Area					2.39ha

Table 3.2: Summary of Linear Habitats within Site

Habitat and Photo Reference	UK Habitat Classification Type	BNG Habitat Equivalent	Phase 1 Habitat Equivalent	Condition Assessment Estimate	Length (km)
Habitat 10 Tree line 1 (Photos 1 and 12)	w1g6 line of trees with the following secondary codes: 36 plantation and 154 open grown trees.	Line of trees (ecologically valuable)	J5 – Other habitat	Moderate	0.13
Habitat 11 Tree line 2 (Photo 13)	w1g6 line of trees - no secondary codes were noted	Line of trees (ecologically valuable)	J5 – Other habitat	Moderate	0.05
Total Length					0.18km

4.0 POST-DEVELOPMENT HABITATS

- 4.1 In accordance with the planning layout the following habitats, summarised at **Table 4.1** below, will be retained, enhanced or created. The planning layout is presented using UKHab symbology at **Figure 4**.
- 4.2 0.26 hectares of the plantation woodland (Habitat 1) and 0.12 kilometres of Tree Line 1 will be retained and incorporated into the design of the site. It is not considered feasible in this instance to enhance the retained woodland from 'moderate' condition to 'good' due to the location within a suburban landscape. Tree Line 2 and the remaining area-based habitats within the site will be lost to the development.
- 4.3 Note that target condition assessments for the proposed habitats are appended at **Section 6.3**.
- 4.4 0.34 hectares of Public Open Space (POS) will be created as part of the proposals. In accordance with the landscape masterplan, it has been assumed that 0.10 hectares can be used to create native mixed scrub (of moderate condition), 0.10 hectares to wildflower grassland (of good condition) and the remaining 0.14 hectares of grassland will be managed as amenity grassland (of moderate condition).
- 4.5 The remaining 1.79 hectares will be developed to roads, buildings and gardens; ERAP (Consultant Ecologists) Ltd have measured from the proposals plan that 1.13 hectares of the site will be developed land with 0.66 hectares of vegetated gardens.
- 4.6 As shown on **Figure 4** the landscape masterplan indicates that 36 urban trees (assumed to be of 'medium' size and managed to a 'moderate' condition) can be implemented at the site. Note that medium trees are measured to have a diameter at breast height of 31 to 90cm, and a metric root protection area radius of 10.8m, after 30 years from the year of establishment.
- 4.7 A greater number of urban trees within the site will provide a greater number of habitat units, however the suitability of the planting in relation to the habitats below the trees must be considered; excessive shading may prevent other habitats attaining the condition required, and may result in a habitat being reclassified as young plantation woodland, for example.
- 4.8 Losses and gains of habitats have been quantified using the BNG Metric, and the results are presented below. The measurement of the proposed habitats (including gardens) has been completed by ERAP (Consultant Ecologists) Ltd using the proposals plans.

Table 4.1: Summary of Area-based Habitats Retained or Created at Site

Habitat	Notes on Retained, Enhanced and Created Habitats	BNG Equivalent Habitat	Target Condition Assessment	Area (ha)
Habitat 1 Retained plantation woodland	Retained	Woodland and forest - other woodland; mixed	Moderate	0.26
New Habitat A Proposed native scrub planting	Moderate condition proposed for new scrub	Heathland and shrub – mixed scrub	Moderate	0.10
New Habitat B Proposed wildflower grassland	Moderate condition proposed for new wildflower grassland to be created within POS	Grassland - other neutral grassland	Good	0.10
New Habitat C Proposed amenity grassland	Moderate condition attainable for new amenity grassland to be created within POS	Grassland - modified grassland	Moderate	0.14
New Habitat D Proposed vegetated gardens	Proposed within developed area	Urban – vegetated gardens	N/A	0.66
New Habitat E Proposed buildings, roads and other developed land	New development	Urban – developed land; sealed surface	N/A	1.13
New Habitat F Urban trees	Medium size urban trees x 36	Urban – urban tree	Moderate	1.32 ³
Total area				2.39ha

Table 4.2: Summary of Linear Habitats Retained or Created at Site

Habitat	Notes on Retained and Created Habitats	BNG Equivalent Habitat	Target Condition Assessment	Length (km)
Habitat 10 Tree Line 1	120m retained	Line of trees (ecologically valuable)	Moderate	0.12
New Habitat G Proposed Hedgerow	Composed of a variety of native plant species	Native species-rich hedgerow ⁴	Moderate	0.16
Total length				0.28km

³ Note that due to the way urban trees are calculated within the BNG metric their area does not contribute to the total site area calculation. For the purposes of this assessment urban trees located within Public Open Space and gardens have been counted, and the 'medium' tree size has been assumed.

⁴ Note that five or more native woody species must be present for the hedgerow to be classed as 'native species rich'

4.9 The headline results of the BNG Metric are presented below at **Table 4.3**.

Table 4.3: Results of Biodiversity Metric 3.1 Calculation (from Headline Results Tab of BNG Worksheet)

On-site Baseline	Habitat units	11.80
	Hedgerow units	1.44
	River units	0.00
On-site Post Intervention	Habitat units	9.38
	Hedgerow units	2.03
	River units	0.00
Off-site Baseline	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site Post Intervention	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Total Net Unit Change	Habitat units	-2.42
	Hedgerow units	+0.59
	River units	0.00
Total Net % Change	Habitat units	-20.47%
	Hedgerow units	+41.05%
	River units	0.00%

4.10 As demonstrated at **Table 4.3**, the Biodiversity Metric 3.1 Calculation Tool confirms that a net loss in habitat area-based units will occur as a consequence of the proposals.

4.11 It is therefore recommended that a net gain is attained by either (or a combination of) the following methods:

- Revision of the site proposals to facilitate further compensation for losses of habitat on site (note that it is not considered that losses can be realistically accounted for solely by on-site habitat enhancements / creation in this instance without loss of housing units and a greater area of habitat creation within the site);
- Off-site habitat creation / enhancement to mitigate for the losses on site; and / or
- A financial contribution to the Local Planning Authority to facilitate the creation / enhancement / management of other habitats within the local area.

4.12 A long term habitat management plan will be required at the areas of POS within the site to ensure that the calculation remains an accurate assessment of the change in habitat units at the site as a consequence of the proposed development.

5.0 REFERENCES

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6.0 APPENDIX: CONDITION ASSESSMENTS AND FIGURES

6.1 Condition Assessments

Table 6.1: Condition Assessment for Plantation Woodland

Indicator	Good (3 points)	Moderate (2 points)	Poor (1 point)	Habitat 1 Plantation Woodland
1. Age distribution of trees ¹	Three age classes present	Two age classes present	One age class present	Moderate (2)
2. Wild, domestic and feral herbivore damage	No significant browsing damage evident in woodland ²	Evidence of significant browsing pressure is present in 40% or less of whole woodland	Evidence of significant browsing pressure is present in 40% or more of whole woodland	Good (3)
3. Invasive plant species ³	No invasive species present in woodland	Rhododendron or laurel not present, other invasive species < 10% cover	Rhododendron or laurel present, or other invasive species > 10% cover	Good (3)
4. Number of native tree species	Five or more native tree or shrub species found across woodland parcel	Three to four native tree or shrub species found across woodland parcel	None to two native tree or shrub species across woodland parcel	Good (3)
5. Cover of native tree and shrub species	> 80% of canopy trees and >80% of understory shrubs are native	50-80% of canopy trees and 50-80% of understory shrubs are native	< 50% of canopy trees and <50% of understory shrubs are native	Moderate (2)
6. Open space within woodland ⁴	10 – 20% of woodland has areas of temporary open space, unless woodland is <10ha in which case lower threshold of 10% does not apply	21- 40% of woodland has areas of temporary open space	More than 40% of woodland has areas of temporary open space	Good (3)
7. Woodland regeneration ⁵	All three classes present in woodland; trees 4-7cm dbh, saplings and seedlings or advanced coppice regrowth	One or two classes only present in woodland	No classes or coppice regrowth present in woodland	Poor (1)
8. Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback	11% to 25% mortality and/or crown dieback or low risk pest or disease present	Greater than 25% tree mortality and or any high risk pest or disease present	Good (3)
9. Vegetation and ground flora	Ancient woodland flora indicators present	Recognisable NVC plant community present	No recognisable NVC community	Poor (1)
10. Woodland vertical structure ⁶	Three or more storeys across all survey plots or a complex woodland	Two storeys across all survey plots	One or less storey across all survey plots	Moderate (2)
11. Veteran trees ⁷	Two or more veteran trees per hectare	One veteran tree per hectare	No veteran trees present in woodland	Poor (1)
12. Amount of deadwood	50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	Less than 25% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	Poor (1)
13. Woodland disturbance ⁸	No nutrient enrichment or damaged ground evident	Less than 1 hectare in total of nutrient enrichment across woodland area and/or less than 20% of woodland area has damaged ground	More than 1 hectare of nutrient enrichment and/or more than 20% of woodland area has damaged ground	Moderate (2)
Total Score				27
Good (total score >32)				No
Moderate (total score 26 to 32)				Yes
Poor (total score <26)				No

Table 6.2: Condition Assessments for Grassland and Tall-herb Habitats

Condition Assessment Criteria	Habitat 2 Tall-herb Vegetation in Yard	Habitat 3 Grassland in Yard	Habitat 5 Tall-herb in Grassland Area	Habitat 6 Unmanaged Grassland Area	Habitat 7 Marshy Grassland
1. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward. <i>NB – this criterion is essential for achieving moderate condition for non-acid grassland types only.</i>	No	No	No	Yes	Yes
2. 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.	No	No	No	No	No
3. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Yes	Yes	Yes	Yes	Yes
4. Cover of bracken less than 20% and cover of scrub (including Bramble) less than 5%.	Yes	Yes	Yes	No	Yes
5. There is an absence of invasive non-native species listed on Schedule 9 of <i>Wildlife and Countryside Act 1981</i> (as amended). Combined cover of undesirable species ¹ 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.	No	No	No	No	No
6. <i>Additional Group – non-acid grassland types only</i> There are greater than 9 species per metre squared. <i>NB – this criterion is essential for achieving good condition (non-acid grassland types only)</i>	No	Yes	No	No	Yes
Non-acid Grassland Types					
Good: passes 5 of 6 criteria, including essential criteria 1 and 6	No	No	No	No	No
Moderate: passes 3 or 4 of 5 criteria Passes 3 of 6 criteria, including essential criterion 1	No	No	No	No	Yes
Poor: passes 0, 1 or 2 of 5 criteria OR passes 3 or 4 criteria excluding criterion 1 and 6	Yes	Yes	Yes	Yes	No
Additional Information:					
¹ Footnote 1: Species considered undesirable 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>).					

Table 6.3: Condition Assessments for Bramble and Mixed Scrub

Condition Assessment Criteria	Habitat 8 Bramble Scrub	Habitat 9 Mixed Scrub
1. Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover).	No	No
2. There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs.	No	No
3. There is an absence of invasive non-native species listed on Schedule 9 of <i>Wildlife and Countryside Act 1981</i> (as amended) and undesirable species ¹ make up less than 5% of ground cover.	Yes	Yes
4. The scrub has a well-developed edge with scattered scrub and tall grassland and / or herbs present between the scrub and adjacent habitat(s).	Yes	Yes
5. There are clearings, glades or rides present within the scrub, providing sheltered edges.	No	No
Good: passes 5 of 5 criteria	No	No
Moderate: passes 3 or 4 of 5 criteria	No	No
Poor: passes 0, 1 or 2 of 5 criteria	Yes	Yes

Table 6.4: Condition Assessments for Tree Lines 1 and 2

Condition Assessment Criteria	Habitat 10 Tree Line 1	Habitat 11 Tree Line 2
1. More than 70% of trees are native species.	Yes	Yes
2. Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	No	No
3. Includes one or more mature ¹ or veteran ² tree.	Yes	Yes
4. There is an undisturbed naturally vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other anthropogenic operations.	Yes	Yes
5. At least 95% of the 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.	Yes	Yes
Good: passes 5 of five criteria	No	No
Moderate: passes 3 or 4 of 5 criteria	Yes	Yes
Poor: passes 0, 1 or 2 of 5 criteria	No	No

6.2 Photographs (December 2021)



Photo 1: Plantation woodland (and Tree Line 1) at site boundary



Photo 2: Plantation woodland at site boundary



Photo 3: Tall-herb vegetation in yard (mown short but surveyor knowledge of the site confirms that this area supports dense Common Nettle in summer)



Photo 4: Grassland in yard



Photo 5: Hard standing in yard



Photo 6: Building in yard



Photo 7: Tall-herb vegetation within grassland area



Photo 8: Unmanaged grassland area



Photo 9: Marshy grassland



Photo 10: Bramble scrub



Photo 11: Mixed scrub



Photo 12: Tree line 1



Photo 13: Tree line 2

6.3 Target Condition Assessments for Proposed Habitats

Table 6.5: Proposed Condition for Native Scrub Planting Proposed

Condition Assessment Criteria	Proposed Native Scrub
1. Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover).	Yes
2. There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs.	No
3. There is an absence of invasive non-native species listed on Schedule 9 of <i>Wildlife and Countryside Act 1981</i> (as amended) and undesirable species ¹ make up less than 5% of ground cover.	Yes
4. The scrub has a well-developed edge with scattered scrub and tall grassland and / or herbs present between the scrub and adjacent habitat(s).	Yes
5. There are clearings, glades or rides present within the scrub, providing sheltered edges.	No
Good: passes 5 of 5 criteria	No
Moderate: passes 3 or 4 of 5 criteria	Yes
Poor: passes 0, 1 or 2 of 5 criteria	No
Additional Information: ¹ Species considered undesirable for this habitat type include: Creeping Thistle (<i>Cirsium arvense</i>), Common Nettle (<i>Urtica dioica</i>), Cherry Laurel (<i>Prunus laurocerasus</i>), Snowberry (<i>Symphoricarpos</i> spp.), Buddleia (<i>Buddleja</i> spp.), Cotoneaster (<i>Cotoneaster</i> spp.), and Spanish Bluebell (<i>Hyacinthoides hispanica</i>) (or hybrids).	

Table 6.6: Proposed Condition for Wildflower Grassland

Condition Assessment Criteria	Proposed Wildflower Grassland
1. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward. <i>NB – this criterion is essential for achieving moderate condition for non-acid grassland types only.</i>	Yes
2. 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.	Yes
3. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Yes
4. Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	Yes
5. There is an absence of invasive non-native species listed on Schedule 9 of <i>Wildlife and Countryside Act 1981</i> (as amended). Combined cover of undesirable species ¹ 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.	Yes
6. <i>Additional Group – non-acid grassland types only</i> There are greater than 9 species per metre squared. <i>NB – this criterion is essential for achieving good condition (non-acid grassland types only)</i>	Yes
Non-acid Grassland Types	
Good: passes 5 of 6 criteria, including essential criteria 1 and 6	Yes
Moderate: Passes 3 of 6 criteria, including essential criterion 1	No
Poor: passes 0, 1 or 2 of 5 criteria OR passes 3 or 4 criteria excluding criterion 1 and 6	No
Additional Information: ¹ Footnote 1: Species considered undesirable 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>).	

Table 6.7: Proposed Condition for Amenity Grassland

Condition Assessment Criteria	Proposed Amenity Grassland
1. There must be 6-8 species per m2. Note - if a grassland has 9 or more species per m2 it should be classified as a moderate distinctiveness grassland habitat type. NB - this criterion is non-negotiable for achieving good condition.	No
2. 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.	Yes
3. Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes
4. Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.	Yes
5. Cover of bare ground between 1% and 10%, including localised areas, for example, rabbit warrens.	Yes
6. Cover of bracken less than 20%.	Yes
7. There is an absence of invasive non-native species listed on Schedule 9 of <i>Wildlife and Countryside Act 1981</i> (as amended).	Yes
Good: Passes 6 or 7 of 7 including essential criterion 1	No
Moderate: Passes 4 or 5 of 7 criteria; OR passes 4 of 5 criteria including essential criteria 1	Yes
Poor: Passes 0, 1, 2 or 3 of 7 criteria OR passes 4, 5 or 6 but failing criterion 1	No

Table 6.8: Proposed Condition for Urban Trees

Condition Assessment Criteria	Proposed Urban Trees
1. The tree is a native species (or more than 70% within the block are native species)	Yes
2. Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	No
3. More than 50% of trees are mature ² or veteran ³ .	No
4. There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime so the trees retain >75% of expected canopy for their age range and height.	Yes
5. Micro-habitats for birds, mammals and insects are present e.g. presence of deadwood, cavities, ivy or loose bark	Yes
6. More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes
	Good: Passes 5 or 6 of 6 criteria
	Moderate: Passes 3 or 4 of 6 criteria
	Poor: Passes 0, 1 or 2 of 6 criteria
Additional information / definitions: Footnote 1 - Trees in urban areas can under the right conditions provide a large range of habitat opportunities, supporting lichens, invertebrates and birds. Trees in urban areas provide opportunistic sites for biodiversity to colonise and re-colonise, increasing connectivity and contributing to biodiversity critical mass between already established patches or sites. This is especially so where transport corridors are populated with mixed native species Footnote 2 - A mature tree in this context is one that is at least 2/3 expected fully mature height for the species. Footnote 3 - All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree may not be very old, but it has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value. Veteran trees can be classified if they have four out of the five following features: 1. Rot sites associated with wounds which are decaying >400cm ² ; 2. Holes and water pockets in the trunk and mature crown >5 cm diameter; 3. Dead branches or stems >15 cm diameter; 4. Any hollowing in the trunk or major limbs; 5. Fruit bodies of fungi known to cause wood decay.	

6.4 Figures

Figure 1: Aerial Image of the Site

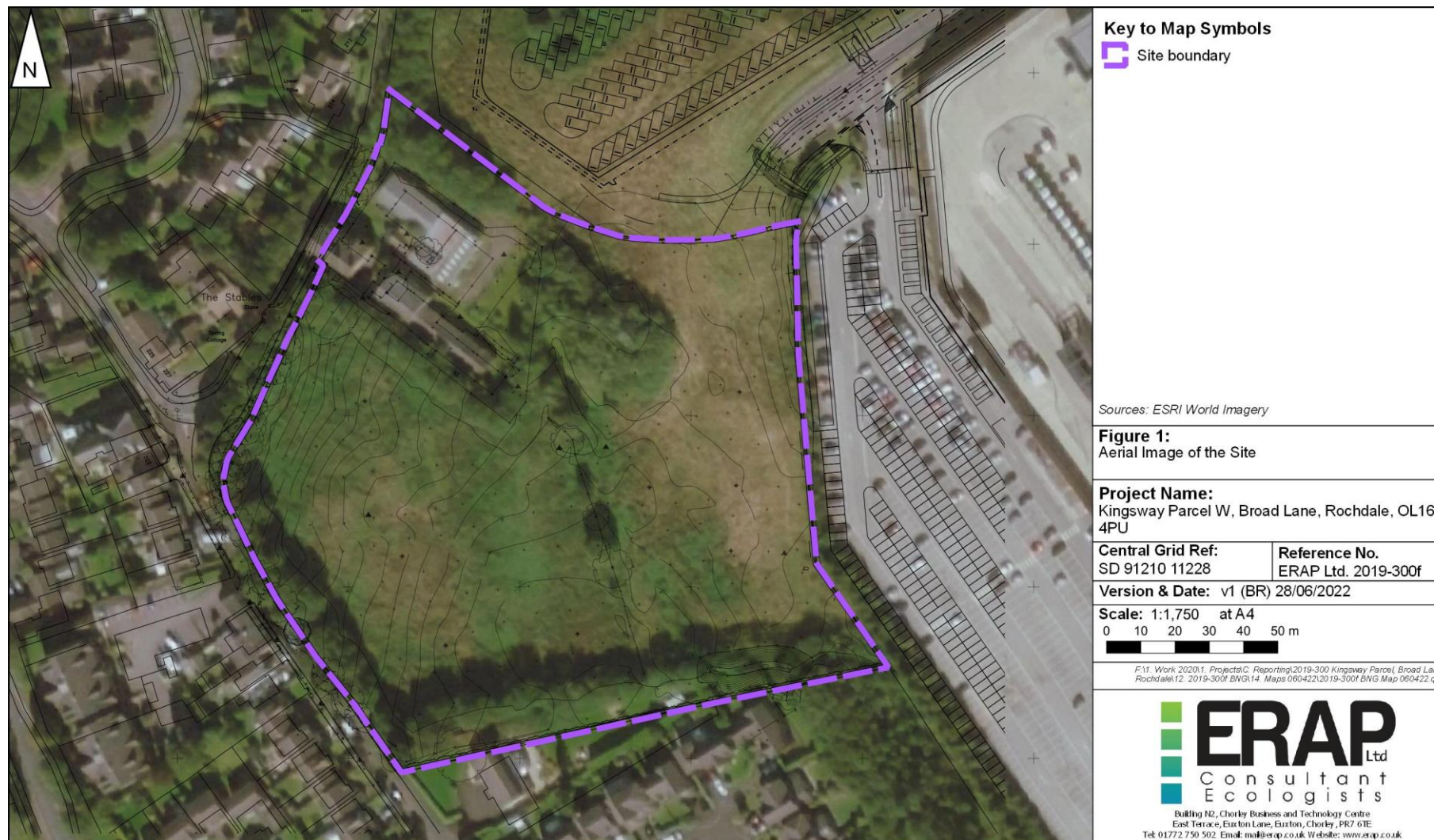


Figure 2: Updated Phase 1 Habitat and Vegetation Map

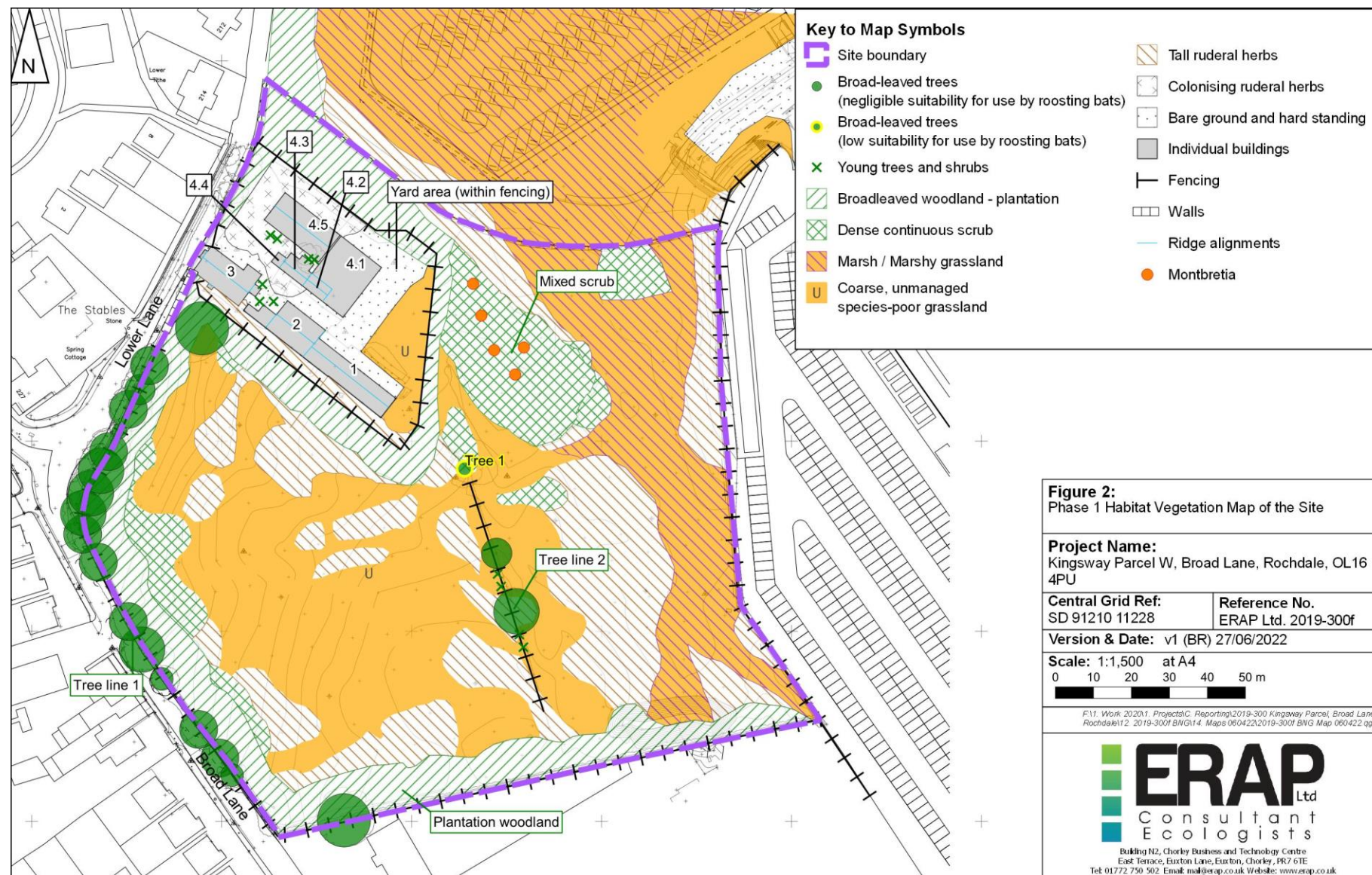


Figure 3: UKHab Map Showing Baseline Habitats



