



**Biodiversity Net Gain (BNG) Report
&
Outline Habitat Management and Monitoring Plan
(HMMP)**

Land at East Street, Rusper

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated only dominant species maybe recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

1.1 The Ecology Partnership was commissioned by Devine Homes to undertake an outline Biodiversity Net-gain calculation for the proposed development north of East Street, Ruser, RH12 4PU, hereafter referred to as 'the site'.

1.1 The site is located to the east of Ruser and to the north-east of Horsham (TQ 20778 37277). The site covers approximately 0.9ha and consists of a large sheep-grazed field and a line of trees with mixed scrub understorey along the southern boundary. The immediate surroundings of the site consist of East Street to the south, low-density residential housing to the west, fields to the north and east, and woodland to the north-west.



Figure 1: Site red line boundary and survey area.

1.2 An accompanying Preliminary Ecological Appraisal (PEA) has been prepared by The Ecology Partnership in support of the current planning application (The Ecology Partnership, 2025). This report should be read in conjunction with the PEA.

1.3 It is understood that the current proposals for the site include the construction of 18 new residential dwellings including associated access, parking, private gardens and SUDS.

2.0 DEFRA Metric Methodology

- 2.1 Principal Ecologist Matt Pendry BSc (Hons) undertook a UK Hab survey, which included condition assessments of each habitat on the 18th September 2024.
- 2.2 The Statutory Metric is used to calculate biodiversity losses and gains for terrestrial habitats within the application area, and supersedes version 4.0 of the Defra metric. This metric underpins the Environment Act's provisions for mandatory biodiversity net-gain in England and defines 'measurable' net-gains.
- 2.3 The Biodiversity Metric uses habitat as a proxy for wider biodiversity with different habitat types scoring different values according to their relative biodiversity value. These are dependent on the condition and location of the habitat, in order to calculate '**biodiversity units**'.
- 2.4 The site has been assessed in terms of the condition assessment of the baseline during both the September 2024 assessment by The Ecology Partnership, and through review of satellite imagery, following the standard metric guidelines.
- 2.5 The accompanying PEA report provides a wider site appraisal, with species lists provided. As such, the PEA should be read in conjunction with this report.

3.0 DEFRA Metric Calculations

- 3.1 The habitats currently present on site have been divided into a number of habitat types. These are shown in Table 1 and 2 and Figure 2 overleaf.

Table 1. On-Site Habitat Baseline

Habitat Type	Area (ha)	Distinctiveness	Condition	Strategic significance	Total units	Area retained	Area enhanced	Units lost	Comments
Modified grassland	0.773	Low	Poor	Low	1.55			1.55	<i>Sheep-grazed short-sward grassland over the majority of the site</i>
Mixed scrub	0.095	Medium	Moderate	Low	0.76	0.08		0.12	<i>A dense understorey of mixed native shrubs below the line of trees along southern boundary</i>
Artificial unvegetated, unsealed surface	0.008	V. Low	N/A- Other	Low	0.00			0.00	<i>Rubble pile in south west of site</i>
Rural tree	0.0163	Medium	Moderate	Low	0.13			0.13	<i>4 small trees to be removed from treeline</i>
Rural tree	0.0529	Medium	Good	Low	0.63			0.63	<i>1 medium, and 1 large tree to be removed from treeline</i>
Total habitat area (ex. trees)	<u>0.88</u>	Totals			<u>3.07</u>	<u>0.08</u>	<u>0</u>	<u>2.43</u>	

Table 2. On-Site Hedgerow Baseline

Habitat Type	Length (km)	Distinctiveness	Condition	Strategic significance	Total units	Length retained	Units lost	Comments
Native hedgerow	0.02	Low	Good	Low	0.12	0.017	0.02	<i>Southwest boundary</i>
Ecologically valuable line of trees	0.127	Medium	Good	Low	1.52	0.119	0.10	<i>Small section lost for site access</i>
Total habitat area	<u>0.15</u>	Totals			<u>1.64</u>	<u>0.14</u>	<u>0.11</u>	

3.2 The habitats currently present on site have been assessed as having a value of **3.07 habitat units** and **1.64 hedgerow units**.

3.3 The habitat types and areas from the baseline are shown in Figure 3 below and the proposed habitats are shown in Figure 4. A detailed landscape strategy produced by IJLA has been produced for the site. The site will support residential development with associated gardens and hardstanding, the proposed habitat types comprise enhanced wildflower-rich grassland in the south west of the site and along the north and eastern boarders, as well as, modified grassland, introduced shrubs, and a species rich native hedgerow scattered within the new residential development. The species rich native hedgerow will also extend around the edges of the site. The proposals include mixed scrub to be planted in the south of the site and 25 individual trees to be scattered across the site.



Figure 3: Habitats present on site pre development

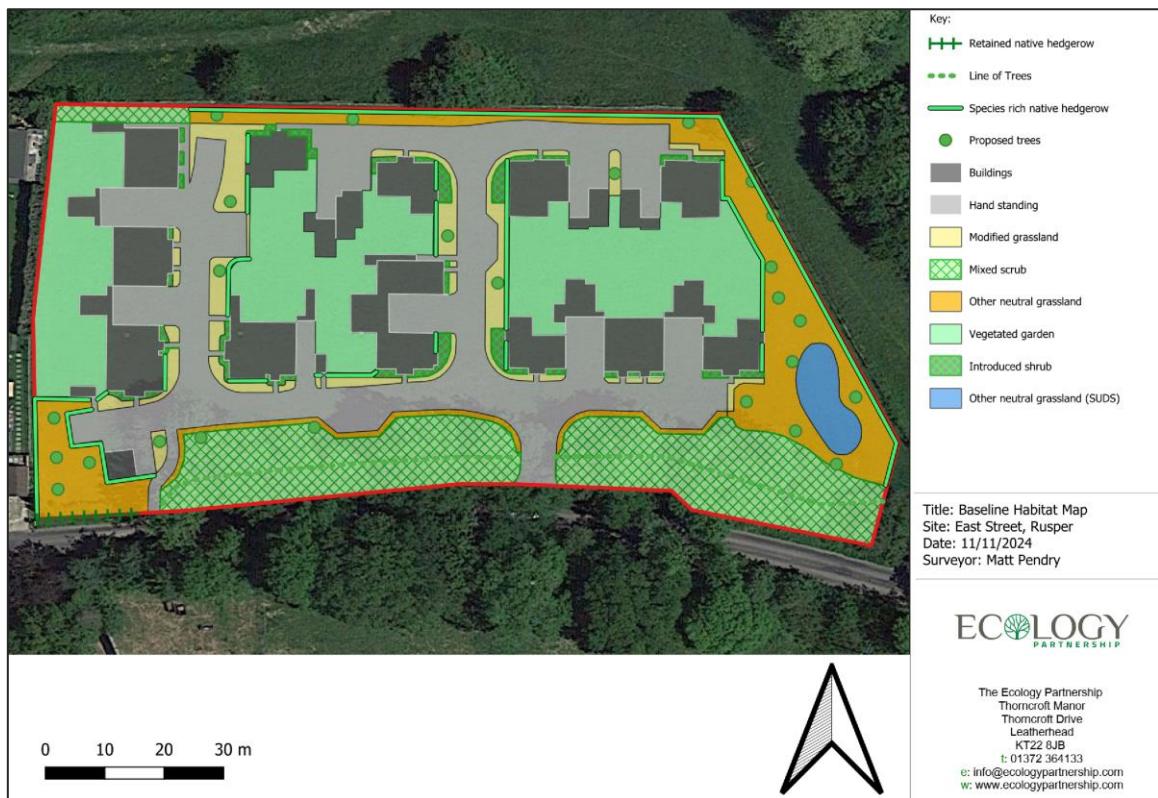


Figure 4: Post development habitat map.

Table 4. On-Site Habitat Creation

Habitat Type	Area (ha)	Distinctiveness	Condition	Strategic significance	Time to target condition (years)	Difficulty of creation	Total units	Comments
Other Neutral Grassland (SUDS)	0.012	Medium	Moderate	Low	5	Low	0.08	<i>Sustainable Urban Drainage System in south east of the site planted with wildflower mix.</i>
Sealed surface	0.367	V. Low	N/A- Other	Low	0	Low	0.00	<i>All roads, parking and buildings throughout the site.</i>
Mixed scrub	0.063	Medium	Moderate	Low	5	Low	0.42	<i>New native scrub planting in south and north west of the site.</i>
Modified grassland	0.048	Low	Poor	Low	1	Low	0.09	<i>Grass verges throughout site.</i>
Other neutral grassland	0.115	Medium	Moderate	Low	5	Low	0.77	<i>Native wildflower grassland planting around site borders.</i>
Vegetated garden	0.173	Low	Condition Assessment N/A	Low	1	Low	0.33	<i>Private gardens.</i>
Introduced Shrub	0.018	Low	Condition Assessment N/A	Low	1	Low	0.03	<i>Introduced shrub adjacent to grass verges.</i>
Rural tree	0.1018	Medium	Poor	Low	10	Low	0.29	<i>25 small poor trees.</i>
Total habitat area	0.90	Totals					2.02	
Site Area (Excluding individual trees)	0.80							

Table 5. On-Site Hedgerow creation

Habitat Type	Length (km)	Distinctiveness	Condition	Strategic significance	Time to target condition (years)	Difficulty of creation	Total units	Comments
Species-rich native hedgerow	0.346	Medium	Moderate	Low	5	Low	2.32	<i>Native hedgerow planting around site perimeters and within the centre of the site.</i>

3.4 The proposals for the site would result in a **13.44% net-loss** of habitat units (-0.41) and a **133.96% net-gain** in hedgerow units (2.20).

3.5 The headline results are shown in Figure 5 below.

FINAL RESULTS				
Total net unit change				
(Including all on-site & off-site habitat retention, creation & enhancement)			<i>Habitat units</i>	-0.41
			<i>Hedgerow units</i>	2.20
			<i>Watercourse units</i>	0.00
Total net % change				
(Including all on-site & off-site habitat retention, creation & enhancement)			<i>Habitat units</i>	-13.44%
			<i>Hedgerow units</i>	133.96%
			<i>Watercourse units</i>	0.00%
Trading rules satisfied?			No - Check Trading Summaries ▲	
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
<i>Habitat units</i>	10.00%	3.07	3.38	0.72
<i>Hedgerow units</i>	10.00%	1.64	1.81	0.00
<i>Watercourse units</i>	10.00%	0.00	0.00	0.00

Figure 5: Headline results of the BNG calculation

- 3.6 In order to achieve a net-gain of +10%, an additional **0.72 units** of offsite habitat units will be needed. In order to satisfy the trading rules, this should include 0.48 units of individual trees or a higher distinctiveness habitat, such as lowland meadow.
- 3.7 Once the detailed landscape design has been finalised, the remaining deficit will need to be purchased from an offsite provider, such as the Environment Bank, Habitat Vault, or Nature Impact.
- 3.8 It should be noted the biodiversity units calculated for the site post-development do not take into consideration enhancement features which could be added such as log piles, bird nesting boxes, or bat boxes. All of these could be incorporated into the final design of the site, adding additional gains to biodiversity, albeit not measurable.

4.0 Outline Habitat Management & Monitoring Plan (HMMP)

4.1 A full HMMP will be developed at the detailed design stage to detail the long-term management of the proposed habitats to achieve the targeted habitat conditions, over a 30 year timespan. An outline version of this HMMP is presented below to aid in the determination of this application.

Roles and responsibilities

4.2 The roles and responsibilities will be confirmed at a later date once planning is approved.

Land use summary

4.3 The grassland is currently managed through sheep grazing throughout the year.

4.4 The proposed site will be mainly used for residential purposes, with open greenspace scattered onsite and around the perimeters, but with a greater emphasis on biodiversity. Grassland areas will be wildflower-rich and will be managed through mowing, with different frequency and mow heights for amenity areas within the residential extent of the site and for the biodiversity areas along the boundaries and within the SUDS basin. Individual trees will be planted within the main body of the residential area will be managed for aesthetics and amenity value, whilst mixed scrub in the south of the site and species rich native hedgerow planting along the north east and western boundaries will be managed for biodiversity, with less frequent management.

Baseline Environmental Information

4.5 Detailed baseline environmental for the site is presented in the accompanying PEA and comprises sheep-grazed modified grassland in poor condition with linear scrub and ecologically valuable treeline and hedgerow along the southern boundary.

Summary of planned management activities

4.6 The overall aim for the management of the site is to protect and maintain the ecological value of retained native hedgerow, mixed scrub and ecologically valuable line of trees and ensure that newly created habitats successfully establish and achieve their target condition within a set timeframe. It will also ensure that specific wildlife features, such as bird and bat boxes remain functional throughout the 30 year timeframe of the HMMP.

Habitats and condition targets

4.7 Table 6 overleaf presents a summary of what will be delivered based on the biodiversity metric. These habitat condition targets form the basis of what the management plan is setting out to achieve throughout a period of 30 years. The specific management to achieve these targets is detailed for each habitat on Tables 7 to 11, with a collated table of management prescriptions on Table 12. It should be noted that this excludes habitats with a 0 value such as buildings and roads, habitats with low ecological value such as ornamental/non-native shrub/herbaceous planting, as well as habitat within private ownership such as vegetated gardens.

Habitats retention

4.8 The retained hedgerows, ecologically valuable line of trees and mixed scrub have been protected through the design of the scheme, avoiding root protection areas where possible and using protective measures. This will be detailed in a Construction Environmental Management Plan (CEMP).

Monitoring

4.9 Full detail of the monitoring on site will be detailed in the full and final version of the HMMP. The general proposal for monitoring is for annual assessments of each habitat on site in the first five years and then a single visit every five years thereafter. All trees will be monitored by an arboriculturist and all other habitats will be monitored by an ecologist.

Table 6. Habitat and condition targets summary

Target Habitat Type	Targeted Condition	Years to Targeted Condition	Condition Assessment Targets	Comments
Other neutral grassland	Moderate	5	Passes for criteria A, B, D minimum (A is essential to reach moderate condition) Passes for criteria C, E and F desirable	New areas of native wildflower grassland to be planted around the site borders along the northern and eastern boundary, and an area in the south of the western boundary.
Other Neutral Grassland (SUDS)	Moderate	5	Passes for criteria A, C, D minimum (A is essential to reach good condition)	SUDS basin seeded with EM8 meadow mixture for wetlands, with 19 species of wildflowers.
Species Rich Native Hedgerow	Moderate	5	Passes for criteria for groups A, B, D minimum	Areas of new and existing native hedges around the perimeters of the development, bordering the other neutral grassland.
Mixed scrub	Moderate	4	Passes for criteria A, C, & D minimum	Areas of new native shrub planting in the north west corner and the south of the site.
Rural tree	Poor	10	Passes for criteria A & D desirable	12 small trees to be planted. As only poor condition targeted, management will focus on the health and longevity of the tree as opposed to specific condition criteria.

Table 7. Management and condition targets – Other neutral grassland (not SUDS)

Other neutral grassland (not SUDS) Condition Assessment Criteria		Targeted	Creation/ enhancement Approach	Management Approach
A The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type. Note – this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.		Yes	Cut existing grass to ground level (and remove cuttings) in autumn. Scarify the ground and seed with EM4 seedmix at 4g/m ² .	For the following three years cut monthly to c.50mm and collect and remove cuttings in Aug-Oct. With additional cuts in April/May in years 2/3. On all subsequent years the sward will be cut to c.50mm once a month in April, and September.
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.		Yes	n/a	In addition to the above management, at least 20% of the total grassland area will be left unmown, targeted along the edges of the species rich native hedgerows/scrub surrounding the grassland. This will help provide a buffer of overwintering habitat for invertebrates and reptiles, with only a single cut in August to control any excessive scrub encroachment.
C Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.		Yes but not essential	n/a	After the August cut, the ground will be scarified to ensure between 1 and 5% of the area comprises bare ground, allowing opportunities for seeds to make contact with the ground and increase chance of new wildflowers establishing.
D Cover of bracken <i>Pteridium aquilinum</i> less than 20% and cover of scrub (including bramble) less than 5%.		Yes	n/a	The management described for A&B will ensure bracken and scrub remain below these thresholds.
E Combined cover of species indicative of suboptimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging activities) accounts for less than 5% of total area. If any invasive non-native species (as listed on Schedule 9 of WCA) are present, this criterion is automatically failed.		Yes but not essential	n/a	The above management will help suppress certain undesirable species.
F There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type.		Yes but not essential	The proposed seed mix, includes at least 28 different species.	The above management will help maintain species-richness, although it may not be possible for all areas to maintain above a species richness of 10 species/m ² .

Table 8. Management and condition targets – Other neutral grassland (SUDS)

Other neutral grassland (SUDS) Condition Assessment Criteria		Targeted	Creation/ enhancement Approach	Management Approach
A	<p>The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type.</p> <p>Note – this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.</p>	Yes	Seed SUDS basin with EM8 meadow mixture for wetlands seedmix at 4g/m ² and gently roll the area.	Starting the following August cut to c.50mm and collect and remove cuttings, where possible. Repeat this process in September and October. On all subsequent years the sward will be cut to c.50mm once in March, and again in September, with cutting removed where feasible. .
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.	No	n/a	n/a
C	Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Yes	n/a	After each September cut, the bottom of the SUDS basin will be scraped/scarified to ensure between 1 and 5% of the basin comprises bare ground.
D	Cover of bracken <i>Pteridium aquilinum</i> less than 20% and cover of scrub (including bramble) less than 5%.	Yes	n/a	The management described for A will ensure bracken and scrub remain below these thresholds.
E	<p>Combined cover of species indicative of suboptimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging activities) accounts for less than 5% of total area.</p> <p>If any invasive non-native species (as listed on Schedule 9 of WCA) are present, this criterion is automatically failed.</p>	Yes but not essential	n/a	The above management will help suppress certain undesirable species.
F	<p>There are 10 or more vascular plant species per m² present, including forbs that are characteristic of the habitat type.</p> <p>Note – this criterion is essential for achieving Good condition for non-acid grassland types only.</p>	Yes but not essential	The proposed seed mix, includes at least 19 different wildflower species.	The above management will help maintain species-richness, although it may not be possible to maintain above a species richness of 10 species/m ² .

Table 9. Management and condition targets – Native hedgerows

Native hedgerows Condition Assessment Criteria		Targeted	Creation/ enhancement Approach	Management Approach
A1	Height >1.5m average along length.	Yes	Hedges will be planted as whips 0.8-1m in height, and protected by tree guards.	Once established the hedgerows will be trimmed to a height of no lower than 2m in the winter period.
A2	Width >1.5m average along length.	Yes	Whips will be planted in two offset parallel lines at least 1m apart	Once established the hedgerows will be trimmed to a width of no thinner than 2m in the winter period.
B1	Gap – hedge base Gap between ground and base of canopy <0.5m for >90% of length.	Yes	n/a	If a gap of at the base of the hedge develops to an extent which causes this condition to fail, the hedgerow will be subject to a hedge laying process by a sufficiently experienced contractor.
B2	Gap – hedgerow canopy continuity Gaps make up <10% of total length; and no canopy gaps >5m.	Yes	Whips will be planted at 1m intervals to ensure a continuous and dense hedge can develop	If gaps form in the hedge due to failed shrubs, these will be removed and new whips planted, and protected with tree guards.
C1	Undisturbed ground and perennial vegetation >1m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: measured from outer edge of hedgerow, and is present on one side of the hedge (at least)	No	n/a	n/a
C2	Nutrient-enriched perennial vegetation Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	No	n/a	n/a
D1	Invasive and neophyte species >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.	Yes	Prior to planting the planting area will be inspected for invasive species. If any are identified, a specialist contractor will be employed to safely kill or legally dispose of it	Visual inspection annually during mid-summer. If any are identified, a specialist contractor will be employed to safely kill or legally dispose of it
D2	Current damage >90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	Yes	n/a	Areas of hedgerow that become significantly damaged will be removed (if necessary) and replanted.

Table 10. Management and condition targets – Mixed scrub

Mixed scrub Condition Assessment Criteria		Targeted	Creation/ enhancement Approach	Management Approach
A	<p>The parcel represents a good example of its habitat type – the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range).</p> <ul style="list-style-type: none"> - At least 80% of scrub is native, - There are at least three native woody species, <p>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).</p>	Yes	Scrub planting will incorporate seven different native species, planted at 1m intervals to allow foraging.	Until establishment scrub will be watered as required to ensure success.
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	No	n/a	n/a
C	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA) and species indicative of suboptimal condition make up less than 5% of ground cover.	Yes	Prior to planting the area will be stripped of existing turf and a mulch applied around the whips to suppress weed growth.	Undesirable species will be controlled as required to ensure they do not exceed 5% of ground cover. Herbicides should be avoided as a treatment however.
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Yes	n/a	The management for other neutral grassland along the edge of the scrub will ensure this criteria is passed.
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	No	n/a	n/a

Table 11. Management and condition targets – Urban trees

Urban trees Condition Assessment Criteria		Targeted	Creation/ enhancement Approach	Management Approach
A	The tree is a native species (or more than 70% within the block are native species).	No	n/a	n/a
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Yes	n/a	n/a
C	The tree is mature (or more than 50% within the block are mature).	No	n/a	n/a
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.	No	Handling, planting and establishment of trees shall be in accordance with BS 8545:2014.	Management of trees shall be in accordance with BS 3998:2010.
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No	n/a	n/a
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	No	n/a	n/a

Table 12. Management prescriptions and timings

Habitat	Management action/prescription	Timing
Other neutral grassland (excluding SUDS)	Cut existing grass to ground level (and remove cuttings) in autumn. Scarify the ground and seed with EM4 seedmix at 4g/m ² and gently roll the area.	September/October <i>First year only</i>
	Cut grassland to c.50mm and collect and remove cuttings, leaving at least 20% uncut adjacent to hedgerows and scrub for majority of the year and central areas uncut when scrub boundary does need to be cut.	<i>First year:</i> Once a month: Aug-Oct <i>Years 2/3 years:</i> Once a month: March-May, Aug-Oct <i>Subsequent years:</i> Once in April, and September <i>Scrub/hedge margins:</i> Once in August
	After each September cut, the ground will be scarified to ensure between 1 and 5% of the area comprises bare ground.	September
Other neutral grassland (SUDS)	Seed SUDS basin with EM8 seedmix at 4g/m ² and gently roll the area.	First September after creation only
	Cut to a height of c.50mm and collect and remove cuttings, where possible	Second year: Monthly August, September, October Subsequent years: Monthly March and September
	After each september cut, the bottom of the SUDS basin will be scraped to ensure between 1 and 5% of the basin comprises bare ground.	September
Native hedgerows	Plant whips in double staggered rows at 1m intervals	First autumn only
	Trim 1/3 of established hedgerows to a height and width of at least 2m	Once annually Nov-Feb, with a different hedge section each year.
	If a gap of at the base of the hedge develops to an extent which causes this condition to fail, the hedgerow will be subject to a hedge laying process by a sufficiently experienced contractor.	Only if required: Nov-Feb
	If gaps form in the hedge due to failed shrubs, these will be removed and new whips planted, and protected with tree guards.	Only if required: Autumn or spring

	Visual inspection for invasive non-native species. If any are identified, a specialist contractor will be employed to safely kill or legally dispose of it	Annually summer months
Mixed Scrub	Prior to planting the area will be stripped of existing turf and a mulch applied. Whips planted at 1m intervals	First spring or autumn only
	For the large areas of scrub, every 10 years 30% of the scrub area will be coppiced to ground level	Every 10 years: Nov-Feb
	Control undesirable species to ensure they make up less than 5% of ground cover.	As required
Urban trees	Plant heavy and extra-heavy standards and apply mulch to bases	First spring or autumn only
All trees and shrub	Water to saturation of ground at base of shrub/tree	Weekly June-August in first three years, and as required outside of this (e.g. weekly in times of drought)
	Monitor health of trees/shrub and replace where necessary	Annually: summer months
All habitats	Identify and remove litter	Monthly
Bird boxes	Clean out old nests and other material from bird boxes with stiff brush, to remove potential parasites.	Annually Sep-Feb
Bird and bat boxes	Confirm they are still attached and in good condition. If broken, they should be replaced by a comparable model. An ecologist should be consulted prior to removal of bat boxes.	Annually Oct to Feb

5.0 Conclusions

- 5.1 The current ecological baseline value of habitats on site is **3.07 habitat units**, comprising modified grassland, mixed scrub and trees, as well as **1.64 hedgerow units** consisting of native hedgerow and ecologically valuable line of trees.
- 5.2 The proposals for the site would result in a **13.44% net-loss** of habitat units (-0.41) and a **133.96% net-gain** in hedgerow units (2.20).
- 5.3 In order to satisfy the trading rules, an additional **0.72 units** of medium distinctiveness offsite habitat units is required, of which, 0.48 units should come from individual trees, or a higher distinctiveness habitat.
- 5.4 This deficit will need to be offset through purchase of units from an offsite provider such as the Environment Bank, Habitat Vault, or Nature Impact.
- 5.5 An outline HMMP has been prepared to detail the proposed management of the ecological features on site including native hedgerow, trees, scrub, wildflower grassland and bird/bat boxes.

Appendix 1: Condition Assessments

Condition Sheet: INDIVIDUAL TREES Habitat Type							
UKHab Habitat Type(s): Urban tree: Covers the following topographical formations most commonly found in urban areas ¹ :							
Individual Trees (urban or rural): Young trees over 75mm in diameter at breast height whose canopies are not touching.							
Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):							
Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies must overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.							
Condition Assessment Criteria		31- Field maple	32- English oak	33- Ash			
	Approximate diameter (mm)	480mm	650mm	480mm			
1	The tree is a native species (or at least 70% within the block are native species).	Pass	Pass	Pass			
2	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Pass	Pass	Pass			
3	The tree is mature (or more than 50% within the block are mature).	Fail	Pass	Pass			
4	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.	Pass	Pass	Pass			
5	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Fail	Pass	Pass			
6	More than 20% of the tree canopy area is oversailing vegetation beneath.	Pass	Pass	Pass			
Condition		Moderate	Good	Good			
Condition Assessment Result							
Good	Passes 5 or 6 criteria						
Moderate	Passes 3 or 4 criteria						
Poor	Passes 2 or fewer criteria						
Footnote 1 - 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.							

Condition Sheet: INDIVIDUAL TREES Habitat Type				
UKHab Habitat Type(s): Urban tree: Covers the following topographical formations most commonly found in urban areas1: Individual Trees (urban or rural): Young trees over 75mm in diameter at breast height whose canopies are not touching. Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only): Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies must overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.				
Condition Assessment Criteria		G2- Ash	G2-Ash	G2-Sycamore
	Approximate diameter (mm)	<300mm	<300mm	<300mm
1	The tree is a native species (or at least 70% within the block are native species).	Pass	Pass	Pass
2	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Pass	Pass	Pass
3	The tree is mature (or more than 50% within the block are mature).	Fail	Fail	Fail
4	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.	Pass	Pass	Fail
5	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Fail	Fail	Fail
6	More than 20% of the tree canopy area is oversailing vegetation beneath.	Pass	Pass	Pass
Condition		Moderate	Moderate	Moderate
Condition Assessment Result				
Good	Passes 5 or 6 criteria			
Moderate	Passes 3 or 4 criteria			
Poor	Passes 2 or fewer criteria			
Footnote 1 - 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.				

Condition Sheet: SCRUB Habitat Type				
UKHab Habitat Type(s): All forms of scrub				
Condition Assessment Criteria		Mixed scrub		
1	The scrub is a good representation of the habitat type it has been identified as, based on its UKHab description (where in its natural range). The appearance and composition of the vegetation closely matches the characteristics of the specific scrub type. At least 80% of scrub is native, and there are at least three native woody species ¹ , with no single species comprising more than 75% of the cover (except hazel, common juniper, sea buckthorn or box, which can be up to 100% cover).	Pass		
2	Seedlings, saplings, young shrubs and mature (or ancient or veteran ²) shrubs are all present.	Pass		
3	There is an absence of invasive non-native plant species ³ (as listed on Schedule 9 of WCA ⁴) and species indicative of sub-optimal condition ⁵ make up less than 5% of ground cover.	Pass		
4	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Pass		
5	There are clearings, glades or rides present within the scrub, providing sheltered edges.	Fail		
		Condition		
Moderate				
Condition Assessment Result				
Good	Passes 5 of 5 criteria			
Moderate	Passes 3 or 4 of 5 criteria			
Poor	Passes 2 or fewer criteria			
Footnote 1 - 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 2 - 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) Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)				
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).				
Footnote 5 - Species indicative of sub-optimal condition for this habitat type may include: non-native conifers, tree-of-heaven, holm oak, European turkey oak, cherry laurel, snowberry, shallon, American skunk cabbage, buddleia, cotoneaster, Spanish bluebell and hybrid bluebells. There may be additional relevant species local to the region and or site.				

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)		
UKHab Habitat Type(s): Grassland - Modified grassland		
Condition Assessment Criteria		Grassland 1
1	<p>There are 6-8 vascular plant species per m 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.</p> <p>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.</p>	Fail <i>(4.6 average species richness over 5 quadrats)</i>
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	Pass
3	<p>Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area.</p> <p>Note - patches of scrub with continuous (more than 90% cover should be classified as the relevant scrub habitat type.</p>	Pass
4	Physical damage is 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.	Pass
5	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens?).	Fail
6	Cover of bracken is less than 20%.	Pass
7	There is an absence of invasive non-native plant species? (as listed on Schedule 9 of WCA*).	Pass
		Condition
		Poor
Condition Assessment Result		
Good	Passes 6 or 7 of 7 criteria including essential criterion 1	
Moderate	Passes 4 or 5 of 7 criteria including passing essential criterion 1	
Poor	Passes 3 or fewer criteria; OR 4-6 of criteria but failing criterion 1	

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