

Biodiversity Net Gain Assessment

Land at Sayers Common

The Ecology Partnership, Thorncroft Manor, Thorncroft Drive, Leatherhead, Surrey KT22 8JB

T +44 (0) 1372 364133 E info@ecologypartnership.com W ecologypartnership.com

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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 Ltd was commissioned by the Welbeck Lane to undertake a Biodiversity Net Gain (BNG) assessment of the development proposed on land Coombe Farm, London Road, Sayers Common, West Sussex, to support a submission to the Draft Mid Sussex District Plan 2021-2039 – Regulation 18 2022 consultation.



Figure 1: Approximate location of the red line boundary, with fields labelled for ease of reference Produced using Google earth Pro

- 1.2 Biodiversity Net Gain (BNG) principles are aimed to support both the aspired green infrastructural proposals set to define the created landscape and support biodiversity and habitat enhancement, requirement (minimum 10%). BNG principles are set within the Environment Bill (2021).
- 1.3 Opportunities to create a more biodiverse ecological landscape would include the following holistic principles of BNG;
 - Nurturing and enhancing biodiversity;
 - Restoring on site habitats including declining habitats;
 - Increase of biodiversity value through natural flood defence incorporating features such as SUDSs, reed beds and ponds.

2.0 Biodiversity Metric 3.1

- 2.1 Biodiversity Metric 3.1 was used to calculate biodiversity losses and gains for habitats within the site. The Biodiversity Calculation Tool is included as a separate excel document. This metric underpins the Environment Bill's provisions for mandatory BNG in England.
- 2.2 The Biodiversity Metric uses habitat as a proxy for wider biodiversity with different habitat types scoring different values according to their relative biodiversity value and dependent on the condition and location of the habitat, to calculate **'biodiversity units**'.
- 2.3 In terms of the Biodiversity Metric 3.1, the opportunity for provision of land being linked and extended are important facets of habitats that can contribute to halting and reversing biodiversity declines. As such the metric also accounts for whether or not the habitat is sited in an area identified, typically in a relevant local strategy or plan, as being of strategic significance for nature. Through the strategic significance factor, the biodiversity metric places a greater reward for habitat creation where it is strategically important and locally relevant, i.e. where new habitat is located in optimal locations or of a type that meet local objections for biodiversity.
- 2.4 In order to inform the BNG assessment, a condition assessment (an assessment of the quality of the habitats present within the site) was undertaken on 30th November 2022 by

Alexia Tamblyn MA (Oxon) MSc CEcol CEnv MCIEEM FRGS, with a review of the habitats from the PEA in 2017 and again in 2021.

- 2.5 The condition assessment provides further scrutiny of the measured habitats (Appendix1). The condition of habitats is dependent on several parameters and may include aspectsof management, the impact of invasive species and nutrient enrichment, which wouldaffect species abundance and specific characterisation of habitat value.
- 2.6 Area measurements for habitat creation are based on the landscape strategy. Please see the separated Biodiversity Metric 3.1 Calculation Tool (excel document) for the detailed habitat areas (pre- and post-development). Appendixes 1 and 2 illustrate these measured habitat areas.

3.0 Results

3.1 The habitats currently present on site have been divided into a number of habitat types. These are shown in Tables 1,2 and 3 below. These have been detailed in the update PEA (previous PEAs 2017, 2021 and update walkover 2022).

Habitat	Area (ha)	Condition
Grassland - Modified grassland	10.12	The sward length was short across all four fields, with largely the same species composition with across them. All fields were subject to grazing (either cows or sheep) or a mowing regime. These fields were dominated by perennial ryegrass, with Yorkshire fog and white clover appearing frequently. Considered 'poor' condition
Urban- Developed land; sealed surface.	0.12	This habitat type was used to describe the roads running across the site.
Woodland and forest - Other woodland; broadleaved	0.48 (all retained)	Deciduous woodland was in the northeast corner of the site. Pedunculate oak and hazel was dominant within this woodland, with occasional bramble in the ground layer. Considered 'moderate' condition
Woodland and forest – Lowland mixed deciduous woodland	2.01 (all retained)	This classification was used for the unit of ancient and semi-natural woodland in the southwest corner of the site. This woodland was dominated by pedunculate

Table 1: Habitat Breakdown – Pre-Development 13.31ha

		oak with hazel appearing abundantly in the
		understorey.
		Considered 'moderate' condition
Woodland and forest –	0.58 (all retained)	This classification was used for the unit of ancient and
Lowland mixed deciduous		semi-natural woodland in the southeast corner of the
woodland		site. This woodland was dominated by pedunculate
		oak with hazel appearing abundantly in the
		understorey. This unit of woodland was exposed to
		heavy sheep grazing.
		Considered 'moderate' condition
Total	13.31 ha	

Table 2: Linear habitat breakdown – Pre-Development 0.98km

Habitat	Length (KM)	Condition	
Native species rich	0.54 (0.48 retained)	These hedgerows were dominated by hawthorn with	
hedgerow		blackthorn appearing frequently and dog rose	
		appearing occasionally. Species of trees including oak,	
		hazel, ash, <i>prunus</i> sp. and field maple appeared rarely	
		within them.	
		Considered 'moderate' condition	
Native hedgerow	0.44 (0.21 retained,	These hedgerows were dominated by hawthorn with	
0.14 enhanced)		blackthorn appearing frequently and dog rose	
		appearing occasionally. Hedgerows were heavily	
		managed with some gaps present. Oak and hazel	
		appeared rarely within them.	
		Considered 'moderate' condition	
Total	0.98km		

3.2 The habitats proposed – i.e. post development on site have been divided estimated from the indicative master plan (Base Proposal). The habitat types and areas from the proposal are shown below in Table 3.

Table 3: Habitat Breakdown – Post Development (Base Proposal)10.90 (excluding street trees)

Habitat type	Area (ha0	Condition
Urban - Developed land;	3.91	This is not assigned a condition.
sealed surface		
		Assigned condition as 'condition assessment N/A'
Grassland - Modified	0.05	Proposed amenity grassland around the residential
grassland		areas. Grassland will be intensively managed.
0		
		Considered 'poor' condition
Urban - Vegetated garden	1.54	Assigned condition as 'condition assessment N/A'
		guidance for use of BNG calculator, areas to be sown

		with (Emorsgate EL1). Grassland which responds to regular mowing but has a higher species mix with wildflowers.
Grassland - Other neutral	1.06	Flowering lawns within the wider public open space
grassland		outside the residential areas
		Considered ' poor' condition
Grassland - Other neutral grassland	1.02	Wildflower grassland within the SUDS.
		Considered 'moderate' condition
Grassland - Other neutral grassland	0.67	Wildflower grassland within the edges and more secluded areas of public open space on site
Grussiaria		sectuded dreas of public oper space of she.
		Considered 'moderate' condition
Heathland and shrub -	1.68	Mixed native shrubs proposed in the open space
Mixed scrub		provisions on site.
		Considered 'moderate' condition
Urban - Street Tree	0.67	Calculated using the street tree calculator, for 165 small
		trees.
		Considered 'poor' condition
Urban – Artificial	0.06	Public play spaces. This is not assigned a condition.
unvegetated, unsealed		
surface		
Urban – Introduced shrub	0.24	Ornamental shrubs around the residential areas.
		Considered 'poor' condition
Total	10.90 ha (excluding	
	street trees)	

3.3 Note, retained habitats are not included in post development calculations but are set within the Site Habitat Baseline and therefore do not appear in the post development calculation. However, the areas should all add up to include; retained habitats, post development (habitat creation) and enhancements.

Habitat	Length (KM)	Condition
Native species rich hedgerow	0.65km	Native species-rich hedgerows with trees is to be planted along the edges of some of the residential areas. Considered 'good' condition

3.4 Tables 5 below show the enhancements to on-site linear features which are being retained and enhanced through the proposals.

Habitat Length (KM)		Condition	
Native hedgerow	0.14	Enhancements through planting of additional native woody shrubs and trees and appropriate management.	
		Increase condition from ' moderate' to ' good '.	

Table 5: Habitat enhancements – Post-development habitat enhancements

- 3.5 In terms of newly proposed habitats within the indicative masterplan, the locations of the suggested habitats have also been strategically situated either next to existing habitats of ecological value, such as native shrub habitat edge along edge of the existing woodland, resulting in a buffer zone between the development and the priority habitat. Furthermore, the additional planting will also act as a commuting and foraging route for multiple species such as bats, reptiles, GCN and a range of mammals.
- 3.6 The headline results for the assessment are shown in figure 2 below.

Coombe Farm - Sayers Common Headline Results			
	Habitat units	57.08	
On-site baseline	Hedgerow units	7.32	
	River units	0.00	
On site post intervention	Habitat units	69.88	
On-site post-intervention	Hedgerow units	13.87	
(Including habitat retention, creation & enhancement)	River units	0.00	
On gite not % ghange	Habitat units	22.43%	
On-she het % change	Hedgerow units	89.43%	
(Including habitat retention, creation & enhancement)	River units	0.00%	
	Habitat units	0.00	
Off-site baseline	Hedgerow units	0.00	
	River units	0.00	
Off site most intermention	Habitat units	0.00	
Off-site post-intervention	Hedgerow units	0.00	
(Including habitat retention, creation & enhancement)	River units	0.00	
Total not unit change	Habitat units	12.80	
I otal net unit change	Hedgerow units	6.55	
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00	
	Habitat units	22.43%	
rotal on-site net % change plus off-site surplus	Hedgerow units	89.43%	
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00%	
Trading rules Satisfied?	Үе	s √	

Figure 2: Headline Results

- 3.7 It should be noted the biodiversity units calculated for the site post-development do not take into consideration enhancement features added such as log piles, bird nesting boxes or bat boxes/tubes, all of which should be installed across the site. It is therefore likely the net biodiversity gain would be higher as a result of these additional measures.
- 3.8 It can be seen that the on-site development will result in a net gain in terms of habitat units on site based off of the indicative masterplan. It should be noted that the results of this report are only valid for the indicative masterplan, from which the proposed habitats were measured, any significant alteration to these plans will therefore require a reassessment.

4.0 Conclusions

- 4.1 The baseline condition of habitats on site is considered to be relatively low, given the dominance of the improved grassland habitat supporting grazing livestock. This offers great opportunity for enhancement post-development. The ancient woodland habitats are being retained within the scheme.
- 4.2 The proposed development will result in a +22.43% net gain in habitat units and a +89.43% net change in hedgerow units.

Appendix 1. Site Habitat Baseline Condition Assessment Tables

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)					
UKHab Habitat Type(s): Grassland - Modified grassland (included amenity grassland)					
Condition Assessment Criteria Grassland North Gra					
1	There must be 6-8 species per m ² . Note - if a grassland has 9 or more species per m ² it should be classified as a moderate distinctiveness grassland habitat type. NB - this criterion is essential for achieving moderate condition.	Approximately 5 species per meter squared. Dominant p.rye Fail	Approximately 5 species per meter squared. Dominant p.rye Fail		
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.	Fail	Fail		
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.	Pass	Pass		
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.	Pass	Pass		
5	Cover of bare ground between 1% and 10%, including localised areas, for example, rabbit warrens.	Fail	Fail		
6	Cover of bracken less than 20%.	Pass	Pass		
7	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	Pass	Pass		
Poor (default failPoor (default failConditioncriteria 1)criteria 1)					
Condition Assessment Result					
Good	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 0, 1, 2 or 3 of 7 criteria; OR 4, 5 or 6 of criteria but failing criterion 1				

Appendix 2. Habitat Baseline



Appendix 3. Habitat Creation



Sayers Common Post Development Habitat Map _{Key}



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The Ecology Partenrship Ltd Thorncroft Manor, Thorncroft Drive, Leatherhead, KT22 8JB W: www.ecologypartnership.com E: info@ecologypartnership.com T: 01372 364133 Appendix 4. Biodiversity Metric 3.1

Please see separate BNG 3.1 excel document.

The Ecology Partnership Thorncroft Manor Thorncroft Drive Leatherhead KT22 8JB

Tel: 01372 364 133

www.ecologypartnership.com

Approved: Alexia Tamblyn MA (Oxon) MSc CEcol CEnv MCIEEM FRGS

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