



**Mr and Mrs Elliot**

**Carr Lane, Doncaster**

Biodiversity Net Gain Assessment

**3<sup>RD</sup> DECEMBER 2025**



# GENERAL NOTES

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**Client:** Mr and Mrs Elliot

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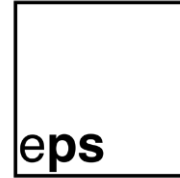
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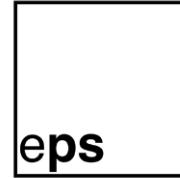
This work has been undertaken in accordance with the quality management system of Eps Ltd.



## EXECUTIVE SUMMARY

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1. This assessment is a desk-based exercise using the results of surveys undertaken by Eps in August 2025 to provide a baseline measure in biodiversity value at the proposed development of an equestrian menage at Carr Lane using the Defra Statutory Biodiversity Metric .
2. Proposed habitat changes arising from future ecological enhancements based on a proposed site layout plan (post-construction) provided by the client are evaluated against the baseline (pre-construction) ecology to demonstrate net change in biodiversity units.
3. This report calculates 'biodiversity units' using the Defra Statutory Biodiversity Metric and following the methods set out in Defra's Statutory Biodiversity Metric user guide. The calculations are based on the area (or length), distinctiveness, condition and strategic significance of habitats found on the site.
4. The full biodiversity assessment calculation can be found in the accompanying Excel document – Carr Lane - Biodiversity Metric; however, screenshots of the main results tables are presented within the report.
5. The site was assessed as comprising a total of 7 habitat types with a baseline of 5.96 habitat area units (i.e. 'biodiversity units'), 0.28 linear hedgerow biodiversity units and 0.36 watercourse biodiversity units.
6. Post-development plans include new habitats with a total of 7.24 habitats area units, 1.26 hedgerow biodiversity units and 0.43 watercourse biodiversity units.
7. The biodiversity assessment thus concludes that the current proposed development will result in a 21.49 % net gain for habitat units and a 350.14% net gain in hedgerow units and an 18.94% net gain in watercourse biodiversity units.



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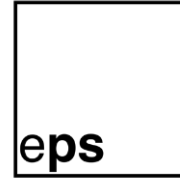
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# 1 INTRODUCTION

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## 1.1 Purpose of this Report

In August 2025, Eps were requested by Mr and Mrs Elliot to carry out a biodiversity assessment of the land at Carr Lane associated with the proposed development of a new residential dwelling. The aim was for an ecologist with botanical expertise to carry out a site visit to map the habitat types present at the site in order to establish the biodiversity baseline.

Each habitat type was mapped using the standard habitat mapping convention UK Habitat Classification (Butcher et al., 2020) for the purposes of using the Defra metric.

The baseline unit values are then measured against post development habitat changes to determine if the works will result in a loss or gain in biodiversity.

## 1.2 Ecological Context

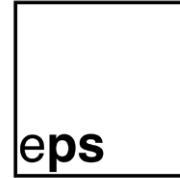
The site is 2.9 ha and *Figure 1* shows the site location.

The site is comprised of an area of hardstanding, existing menage, a pasture field, soft landscaping and a stable block..

## 1.3 Policy context

The primary aim of Biodiversity Net Gain is to secure a measurable improvement in habitat for biodiversity, to minimise biodiversity losses and to help to restore ecological networks whilst streamlining development processes.

In England, BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). Developers must deliver a BNG of 10%. This means a development will result in more or better-quality natural habitat than there was before development.



## 2 METHODS

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### 2.1 Introduction

The Statutory Biodiversity Metric is designed to quantify biodiversity to inform and improve planning, design, land management and decision-making (Natural England, 2023).

This study has been carried out as a desk-based exercise, using the results of field surveys carried out at the site by Eps and an Illustrative Landscape Plan provided by the client. The primary documents consulted as part of this study include:

- Preliminary Ecological Appraisal Report (EPS, 2025)

A map of the pre-construction habitats from the ecological appraisal is presented in *Figure 2*.

### 2.2 Biodiversity Assessment Methods

To calculate biodiversity units for the site and assess any changes arising from the proposed development this study uses methods set out in the Statutory Biodiversity Metric user guide (Natural England, 2024).

The biodiversity metric uses habitat area as its core measurement, except for linear features where it uses habitat length<sup>1</sup>. Additionally, linear habitats are split into two types, Hedgerows, which includes lines of trees and watercourses. Therefore, a site can have three biodiversity unit values, one for habitat areas, one for hedgerow features, and one for watercourse features. They are assessed using the same metric but cannot be summed together.

Habitat area is multiplied by several factors that indicate its quality: distinctiveness, condition and strategic location, this gives its biodiversity unit value. This can be used for existing and future created habitats<sup>2</sup>. This is shown in Image 1.

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<sup>1</sup> Linear features are assessed by length rather than area to avoid underestimating their value and therefore failing to ensure adequate compensation for any losses.

<sup>2</sup> Where future habitats are to be enhanced or newly created, the risk of failure is accounted for by applying multipliers for risk factors (difficulty, time to target condition, and off-site risk).

**PRE-intervention biodiversity calculation (the baseline)**

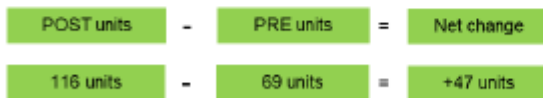


**POST-intervention biodiversity calculation (for newly created or enhanced habitats)**



**Calculation of gains or losses**

The net effect of an intervention (or a series of interventions) on biodiversity is calculated as follows:



**Image 1. Biodiversity Metric Calculation (Natural England, 2023)**

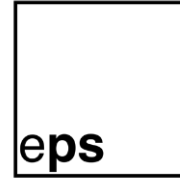
**2.2.1 Habitat Distinctiveness**

Habitats are classified using the phase 1 habitat survey methodology (JNCC 2010) or the UK habitat classification system (Butcher et al., 2020).

The metric pre-assigns each habitat type to a distinctiveness band according to its distinguishing features, i.e. species richness, rarity (at local, regional, national and international scales), and the degree to which it supports species rarely found in other habitats.

**2.2.2 Habitat Condition**

Habitat condition measures the varying quality of similar habitats against what is perceived to be their optimal state. The statutory biodiversity metric technical Annex 1



and 2 (Natural England, 2024a) contains condition sheets and guidance for all habitats to which the metric can apply. The condition sheets contain a habitat description, contextual information to aid the assessment, and the assessment criteria. The criteria describe what components need to be present for a habitat to be in good, moderate or poor condition.

### **2.2.3 Strategic Significance**

Strategic significance works at a landscape scale, allowing additional value to be added to habitats in biodiversity restoration and enhancement target areas. Habitats or areas formally listed in local plans and strategies receive a 1.15 multiplier. A 1.1 multiplier can be applied to habitats not listed within formal plans but within informal national initiatives or deemed sufficiently connected by an ecologist.

### **2.2.4 Difficulty of Creation and Restoration**

The risks associated with creating new or enhancing existing habitats, are known as difficulty factors; for example, where habitats fail to establish owing to natural changes in local conditions, incorrect management or for unknown reasons. The statutory biodiversity metric contains default values for each habitat based on the average difficulty of creating or enhancing a habitat. Occasionally, under exceptional circumstances, these can be modified, but any deviation from the default value must be fully justified.

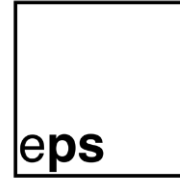
### **2.2.5 Time to Target Condition**

There is often a lag between a habitat being removed and the new compensation habitats achieving their target condition. This gives reduced biodiversity value for a time. The statutory biodiversity metric preassigns the time to target condition based on good practice and typical conditions, and assigns a multiplier based on the number of years required to achieve it.

The time to target condition can be advanced or delayed. This function can be used when habitats are created prior to development works starting or if the development will last multiple years so enhancements may not be put in until several years after the initial loss. Advancing or delaying the time to target condition can also be used on sites where local conditions or bespoke enhancements may take more or less time to achieve target condition. In these situations, the adjustments to the time to target condition must be justified.

### **2.2.6 Off-site Risk**

Sometimes it is not possible to compensate adequately for loss of biodiversity within the site boundary, so off-site compensation is required. If the off-site compensation is a significant distance from the development site, then there will be a local loss of biodiversity and a multiplier is applied to any off-site compensation. The off-site risk multiplier can be avoided by using an approved off-site biodiversity units provider.



## 3 BIODIVERSITY ASSESSMENT

### 3.1 Biodiversity Baseline

The UKHab habitat survey map (Figure 2) has been used to identify the baseline habitats. These habitats have been input into the Defra Statutory Biodiversity Metric calculator and indicate a total of 5.96 area units, 0.28 hedgerow units and 0.36 watercourse units. The results of the calculations are presented in Appendix A. It should be noted that these represent screenshots from the calculator; the full biodiversity assessment calculation can be found in the Excel document 'V7 Primrose Hill - Biodiversity Metric'.

### 3.2 Post-development Habitat Creation and Enhancement

The Illustrative Landscape Plan has been used to identify that there will be 7 retained habitats and 3 new habitats.

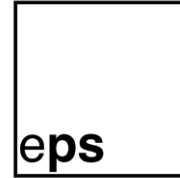
These comprise a total of 7.24 biodiversity area units, 1.26 hedgerow biodiversity units and 0.43 watercourse units.

### 3.3 Change in Biodiversity Value

Under the current proposals set out in the Illustrative Landscape Plan, there will be a net gain of 1.28 biodiversity area units, a net gain of 0.98 hedgerow biodiversity units and a net gain of 0.07 watercourse units. This is shown in Table 1.

**Table 1. Change in Biodiversity Units Calculation**

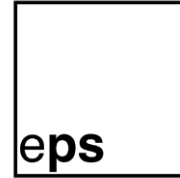
Post-development Biodiversity Area Units		Baseline Biodiversity Area Units		Change in Biodiversity Area Units
7.28	-	5.96	=	1.28
Post-development Biodiversity Hedgerow Units		Baseline Biodiversity Hedgerow Units		Change in Biodiversity Hedgerow Units
1.26	-	0.28	=	0.98
Post-development Biodiversity Watercourse Units		Baseline Biodiversity Watercourse Units		Change in Biodiversity Watercourse Units
0.43	-	0.36	=	0.07



### **3.4 Conclusions**

The change in biodiversity value for the Carr Lane site as set out in Table 1, above, indicates that the development will result in an uplift for biodiversity at the proposed site above the required 10%.

In addition to the proposed on site landscape scheme, bird and bat boxes should be incorporated into the development design, including those suitable for a range of bat species, swift, house sparrow and/or starling, which are all species of conservation concern and are likely to be present within 1 km of the site. These features would provide additional roosting/nesting sites for these species groups and offer further onsite biodiversity gains.



## 4 REFERENCES

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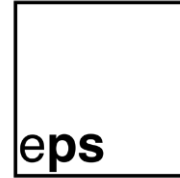
Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020), *UK Habitat Classification – Habitat Definitions V1.1* at <http://ukhab.org>

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EPS, PEA report (2023)



## **5 FIGURES AND PLATES**

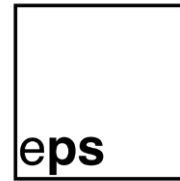
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Figure 1. Site location

Figure 2. Existing Habitats

Figure 3. Proposed Habitats

Table 2. Headline Results



**Figure 1. Site location**

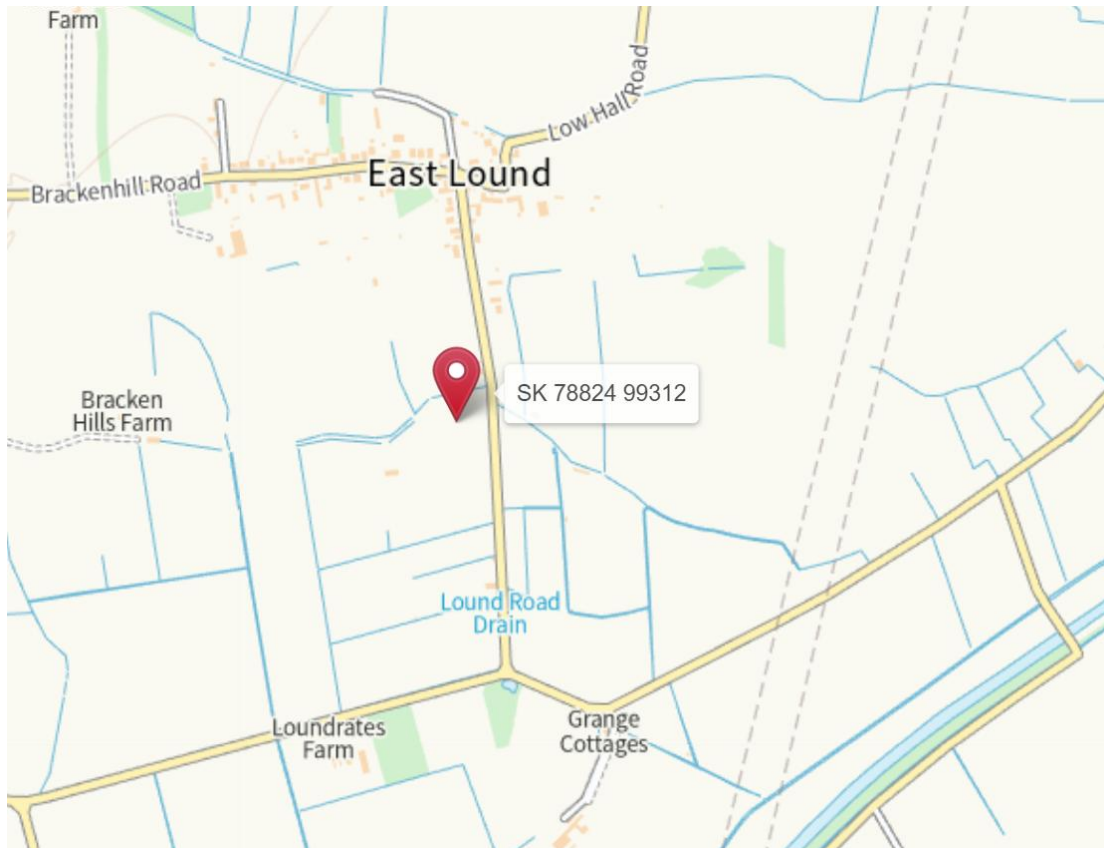
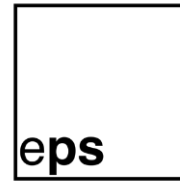






Figure 3. Proposed Habitats





**Table 2. Headline Results**

FINAL RESULTS		
Total net unit change <small>(Including all on-site &amp; off-site habitat retention, creation &amp; enhancement)</small>	<i>Habitat units</i>	1.28
	<i>Hedgerow units</i>	0.98
	<i>Watercourse units</i>	0.07
Total net % change <small>(Including all on-site &amp; off-site habitat retention, creation &amp; enhancement)</small>	<i>Habitat units</i>	21.49%
	<i>Hedgerow units</i>	350.14%
	<i>Watercourse units</i>	18.94%
Trading rules satisfied?	Yes ✓	