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Report prepared for: Wynngate

For the Site of: Land at and to the Rear of 12 Claygate Lane, Esher, KT10 0AQ

Version:	Written by:	Checked by:	Final:
Draft	Luke Beeton 18/03/2024	Heather Stuckey 21/03/2024	
Final	Luke Beeton 18/03/2024	Martin O'Connor 21/03/2024	Luke Beeton 21/03/2024

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Ecological reports are limited in shelf life, usually 12 months for baseline surveys and for BNG as and when plans change. Information is believed to be accurate at the time of the survey; recommendations are made without bias based on good practice guidelines within the industry. However, species presence and ecological parameters can change over time.

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Biodiversity Net Gain (BNG)/Biological Impact Assessment (BIA)

0.0 Non-Technical Summary

0.1 Background

The client commissioned Cherryfield Ecology to undertake a Biodiversity Net gain (BNG)/Biodiversity Impact Assessment (BIA) for the site of Land at and to the Rear of 12 Claygate Lane, Esher, KT10 0AQ, to determine the biological impact of the proposed development.

Biodiversity Net Gain (BNG) is an approach to development that leaves biodiversity in a better state than it was before. The process relies on the mitigation hierarchy, which sets out that everything possible must be done to firstly avoid, secondly, minimise and thirdly restore and rehabilitate losses of biodiversity on site.

This report uses the Statutory Biodiversity Metric (DEFRA 2024), to quantify the biodiversity baseline for the site and calculate the post-development biodiversity unit for the proposed scheme following the best practice guidelines as set down by CIRIA (2019).

0.2 Results and Findings

The baseline habitat on site consists of bramble scrub, vegetated garden, developed land (including one detached two storey dwelling and a detached shed), line of trees and urban trees. The proposed development includes for developed land (including five dwellings, of which three are semi-detached and two are detached), vegetated garden, urban trees (retained trees that have a TPO) and species rich native hedgerow.

- A summary of the change in Biodiversity Net Gain on site is given in Table 1.

Table 1: Change in Biodiversity Net Gain (BNG) on site

BIA Units	Total Net Unit Change	Total Net % change
Habitat Units	-1.66	-58.07%
Hedgerow Units	+0.33	+26.90%
River Units	n/a	n/a

0.3 Impact Assessment and Recommendations

A 10% increase for each unit type present is required to meet the minimum statutory requirement.

The proposed development will result in a **-58.07% net loss** in Habitat Units and a **+26.90% net gain** in Hedgerow Units on site. Therefore, the site meets the requirements for hedgerow units, but does not meet the requirements for habitat units. Additionally, the trading rules for habitat units have not been met.

As such, in order to meet the required 10% net gain for Habitat Units, a further **1.95 Habitat Units** will need to be achieved. To satisfy the trading rules 1.06 units of this will need to be of Medium Distinctiveness scrub habitat type and 0.86 units of medium distinctiveness tree habitat will be required.

This is not possible on-site and off-site compensation will be required.

1.0 Introduction

1.1 Aim

The client, Wyngate, has commissioned Cherryfield Ecology to undertake a BNG for the site of Land at and to the Rear of 12 Claygate Lane, Esher, KT10 0AQ.

The aim of this report is to determine the Biodiversity Net Gain for the proposed scheme and, where necessary, make recommendations for increasing net gain in order to comply with the statutory requirements.

1.2 Site Information

The baseline habitat on site consists of bramble scrub, vegetated garden, developed land (including one detached two storey dwelling and a detached shed), line of trees and urban trees. The proposed development includes for developed land (including five dwelling, of which three are semidetached and two are detached), vegetated garden, urban trees (retained trees that have a TPO) and species rich native hedgerow.

1.3 Study Area

The site is 0.36 Ha in size. The national grid coordinates for the center of the site are TQ1611965711.

1.4 Suitably Qualified Ecologist

This report has been completed by Luke Beeton and checked by Martin O'Connor. Martin meets the criteria for a suitably qualified Ecologist as defined in BS 8683:2021

2.0 Methods

Biodiversity Net Gain is assessed through the use of biodiversity calculators to assess the biodiversity value of habitats pre- and post-development based on habitat type, distinctiveness and condition.

A biodiversity index is derived for the baseline and the proposed development and net gain is achieved where an increase in value is delivered either on-site (or through offsite compensation), where lower value habitat is replaced with one of higher value.

This report uses the Statutory Biodiversity Metric (DEFRA 2024), to quantify the biodiversity baseline for the site and calculate the post-development biodiversity unit for the proposed scheme following the best practice guidelines as set down by CIRIA (2019).

2.2 Limitations

It is important to note that a scheme-wide biodiversity net gain or no net loss cannot be achieved for the scheme as a whole if there are negative impacts on irreplaceable habitats.

Any compensation offered to address impacts on irreplaceable habitats should be agreed directly with Natural England (NE). The baseline habitat which is identified for such compensation and the biodiversity units resulting from this compensation should also be excluded from biodiversity unit calculations.

Following Defra guidance, impacts on irreplaceable habitats and their compensation have been excluded from this biodiversity unit calculation.

Biodiversity Impact Assessment only deals with habitat and as such this report does not cover any of the requirements of the proposed development arising from potential impacts on protected species and designated sites.

3.0 Site Context

3.1 MAGiC

The following statutory sites and Natural England Protected Species (NEPS) have been located within the 2km search area (Figure 1).

Table 2: MAGiC search results

Receptor	Approx Distance and Direction (m/Km)	Description
Statutory sites	527m E 1,636m N	Stokes Field (LNR) Bushy Park and Home Park (SSSI)
Granted protected species licenses	1,806m SW 1,324m NE 1,722m NW 519m SE 670.8m N 679m NE	C-Pip,S-Pip - 2017-30998 Ser - 2019-43974 S Pip - 2015-9131 C-Pip;S-Pip;Ble;Noct - 2009-966 C Pip - 2010-2520 C Pip, S Pip - 2014-3628
Priority habitat	Closest 365m NW	Deciduous woodland

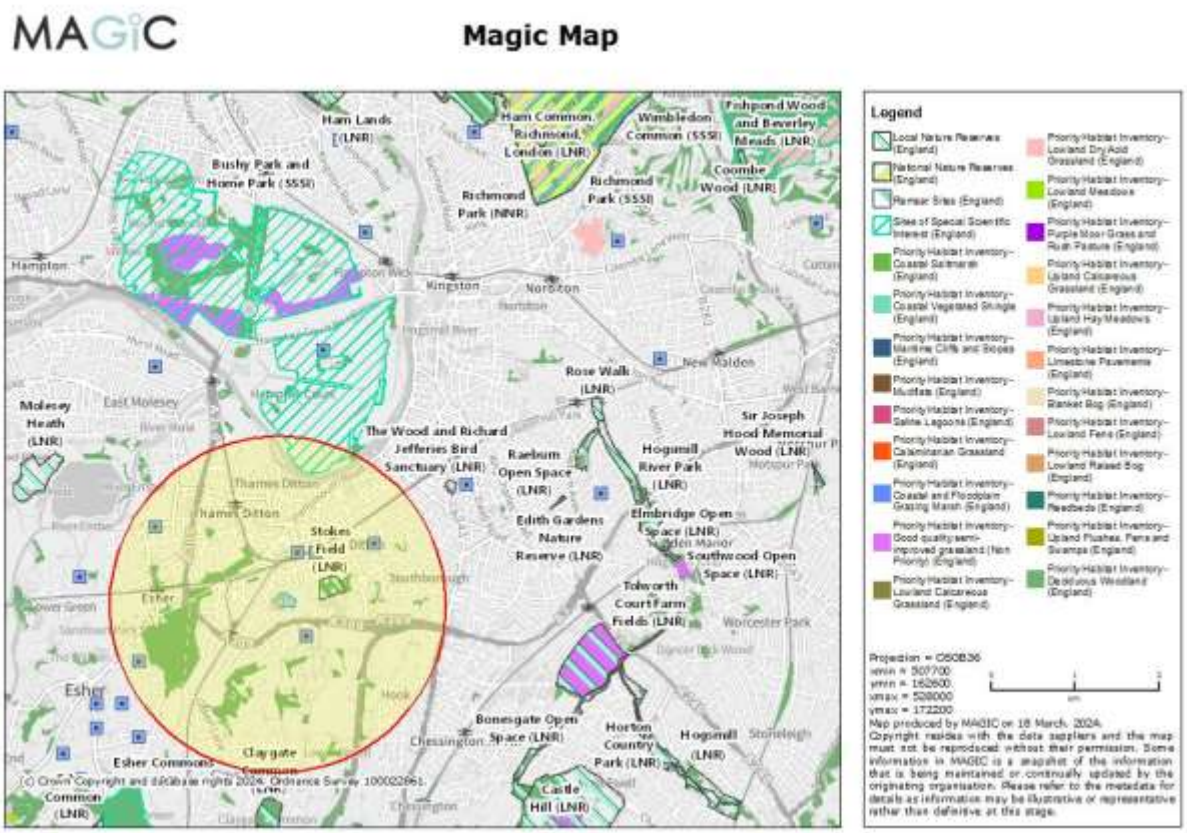

Figure 1: MAGiC

3.2 Strategic Significance

There is no LRNS for the area, and based on biodiversity opportunity areas the site is not located in an area of strategic significance. This is based upon the interactive map provided by Surrey County Council.

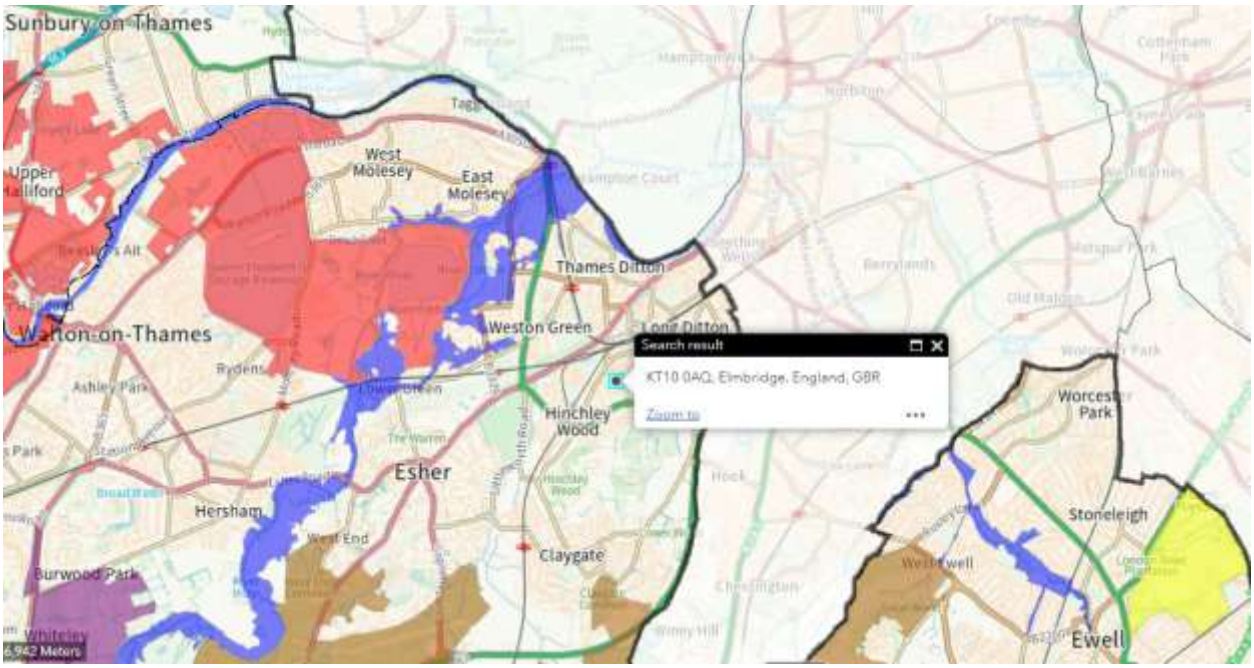

Figure 2: Biodiversity opportunity areas map

4.0 Baseline Units

Information regarding the habitats on site has been drawn from the Ecological Appraisal for the site (Cherryfield Ecology, 2022), and a site walkover was undertaken on 11/03/2024 to condition assess the habitats on site. At the time of the site walkover the tall ruderal habitat had succeeded into bramble scrub and has been classified as such.

The following table details the condition assessments for all habitat and linear features on-site. Please see separate Excel sheet for full condition assessments.

Table 3: Biodiversity Net Gain Condition Assessments/Scores

Habitat (UKHabs)	Condition Score
Buildings/Developed Land Sealed Surface	Set score
Vegetated Garden/Introduced Scrub	Set score
Bramble Scrub	Set score
Urban trees (three trees within the vegetated garden)	Good = 3 The urban trees scored good due to passing five of the criteria.
Urban trees (trees found within the bramble scrub habitat)	Moderate = 2 The urban trees scored moderate due to passing four of the criteria.
Line of trees	Moderate = 2 The line of trees scored moderate due to passing four of the criteria.

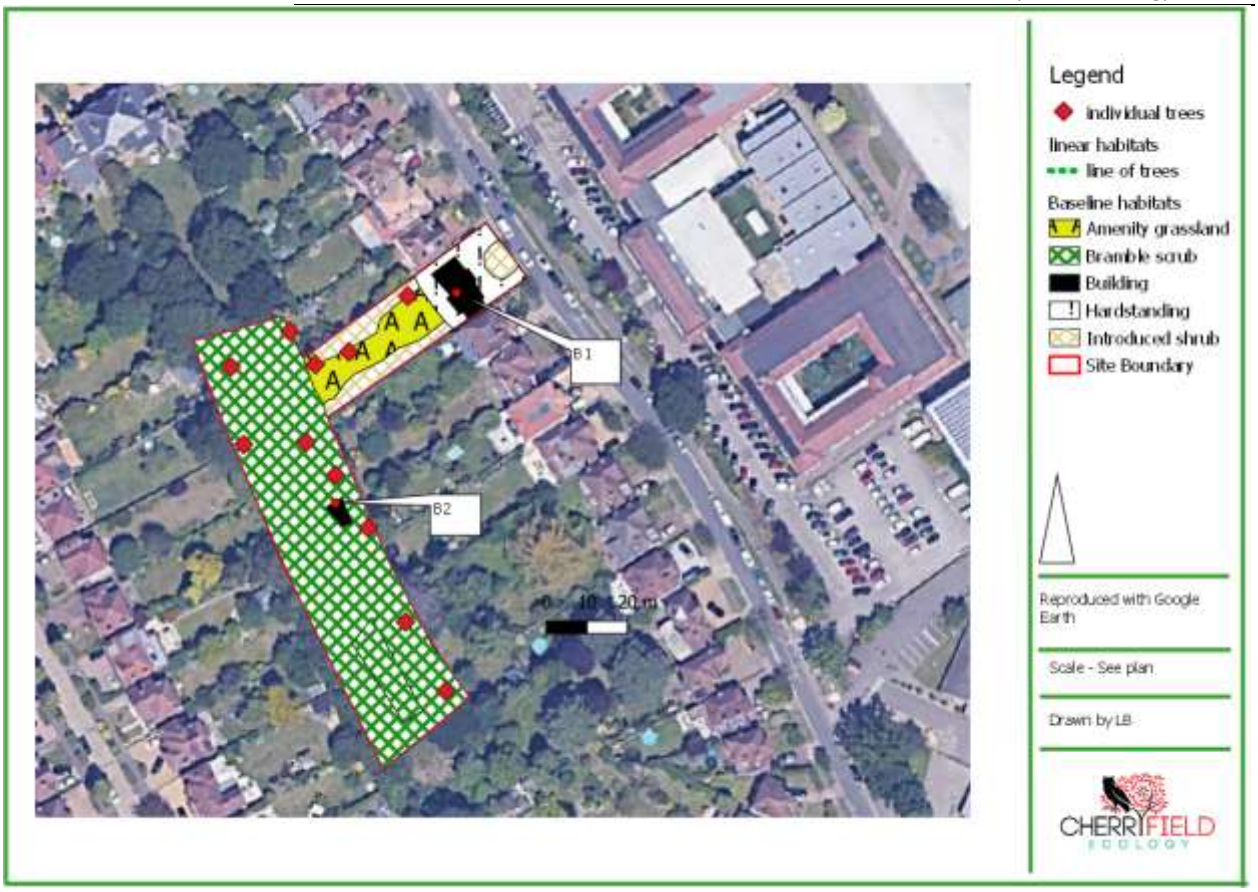

Figure 3: Baseline Habitats Site Plan

Table 4: Baseline Habitat Units.

UKHab Category	Area (Ha)	Habitats Units Delivered
Bramble scrub	0.265	1.06
Developed land	0.034	0.00
Vegetated garden	0.061	0.12
Urban trees (good condition)	0.048	0.58
Urban trees (moderate condition)	0.138	1.10
	Total Biodiversity Units	**2.86**

Table 5: Baseline Linear Units

UKHab Category	Length (km)	Linear Units Delivered
Line of trees	0.313	1.25
	Total Linear Units	**1.25**

5.0 Post-Development Units

Proposed site plans 'I12 Claygate Lane, Hinchley Wood, Esher, Surrey, KT10 0AQ' (ICONIC architectural Design, 2023) were provided by the Client and used to calculate the Biodiversity Units post-development. It has been assumed that with appropriate management the proposed habitats on site can achieve the following conditions. Please see the separate Excel sheet for full condition assessments.

Table 6: Condition of Habitats on-site Post-Development.

UKHab Category	Condition
Developed Land; Sealed Surface	n/a
Vegetated garden	n/a
Species rich native hedgerow	Moderate
Urban trees (retained)	Moderate

Figure 4: Proposed Habitats Site Plan

The Habitat Units and Linear Units for the site post-development have been calculated using georeferenced GIS software (Table 7 and Table 8).

Table 7: Summary of Habitat Units Post-Development

UKHab Category	Area (ha)	Habitats Units Delivered
Vegetated garden	0.17	0.33
Developed Land; Sealed Surface	0.196	0.00
Urban trees (retained)	0.109	0.87
	Total Biodiversity Units	**1.2**

Table 8: Summary of Linear Units Post-Development

UKHab Category	Length (Km)	Habitats Units Delivered
Native Species-Rich Hedgerow	0.236	1.58
	Total Biodiversity Units	**1.58**

6.0 Results

The change in broad habitat types on site for the proposed development are outlined in Table 9.

Table 9: Summary of change in Biodiversity Units on-site

Broad Habitat Type	Existing Value	Proposed Value	On-site Unit Change
Heathland and Shrub	1.06	0.00	-1.06
Urban	0.12	0.33	+0.21
Individual trees	1.68	0.87	-0.81

The proposed development will result in a -58.07% net loss in Habitat Units and a +26.90% net gain in Hedgerow Units on site.

6.1 Discussion

6.1.1 Mitigation Hierarchy

The mitigation hierarchy is the cornerstone of achieving net gain. It is a sequence of mitigation actions as described in table 10.

Table 10: Mitigation hierarchy

Stage	In practice
Avoidance	This first stage is to avoid harm to biodiversity, for example locating to an alternative site. It is the most important stage and can ease the consent process, whereas missing this stage can lead to objections and refusal of permission to the development.
Minimise	If avoiding all adverse impacts is not possible, action is taken to minimize these affects.
Compensation	Addresses residual adverse effects, only considered after all possibilities for avoidance and minimising the effects have been implemented. Offsetting is a form of compensation that trades losses of biodiversity in one location with measurable gains in another. Offsetting losses of

	biodiversity with gains elsewhere can be within or outside of the development footprint.

Table 11 outlines how the mitigation hierarchy has been applied to this site. Recommendations for enhancement and creation are given in section 6.2.2.

Table 11: Application of the mitigation hierarchy

Hierarchy Level	Action	Habitat on site
Avoidance	Avoid	There are no priority habitats on site that would make avoidance necessary.
Minimise	Retain	The only habitats to be retained are five trees. Post development, the location of these trees will fall into private gardens, however, they are all protected by a TPO.
	Enhance	There are no habitats being enhanced on site.
compensation	On-site creation	The site is being converted into residential dwellings with associated gardens (both communal and private) and access.
	Off-site creation	As the proposed development consists predominantly of private residential land, any on-site enhancements cannot be conditioned. As such off-site compensation will be required to achieve the national guidelines for biodiversity net gain. (see Environment Bank https://environmentbank.com/ and Environmental Trading platform https://www.environmentaltradingplatform.com/ for available off-site units).

7.0 Conclusion

A 10% increase for each unit type present is required to meet the minimum statutory requirement.

The proposed development will result in a **-58.07% net loss** in Habitat Units and a **+26.90% net gain** in Hedgerow Units on site. Therefore, the site meets the requirements for hedgerow units, but does not meet the requirements for habitat units.

As such, in order to meet the required 10% net gain for Habitat Units, a further **1.95 Habitat Units** will need to be achieved. To satisfy the trading rules 1.06 units of this will need to be of Medium Distinctiveness scrub habitat type and 0.86 units of medium distinctiveness tree habitat will be required.

This is not possible on-site and off-site compensation will be required.

7.1 Recommendations

In order to maximise the number of net gain units on site the following recommendation should be carried out:

Hedgerows

It is recommended that a diversity of hedgerow species is included in the proposed hedgerows on site. Suitable hedgerow species include:

- Hawthorn (*Crataegus monogyna*)
- Hazel (*Corylus avellana*)
- Holly (*Ilex europaeus*)
- Wild privet (*Ligustrum vulgare*)
- Field maple (*Acer campestre*)
- Blackthorn (*Prunus spinosa*)
- Guelder rose (*Viburnum opulus*)
- Wayfaring tree (*Vibrunum lantana*)
- Dog rose (*Rosa canina*)

- Spindle (*Euonymus europaea*)

The hedgerow should include 5 or more woody species within a 30m length in order to be classified as **species-rich**.

Where possible no cutting should take place during peak bird nesting season, which runs from March to September inclusively. If it is necessary to cut the hedgerows during this period a suitable qualified person should check for nesting birds immediately prior to works being undertaken. Trimming hedges on a two or three year rotation, targeting different sections each year, will make sure there are always flowers for pollinators in spring and berries for birds in autumn. Hedges cut every three years can produce two and a half times as many blossoms as those cut annually. Rotational cutting can also save time and money that would be invested in annual cutting.

7.0 References

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CIRIA (2020), Biodiversity Net Gain: good practice principles for development. [Online] https://cieem.net/wp-content/uploads/2019/02/C776a-Biodiversity-net-gain.-Good-practice-principles-for-development.-A-practical-guide-web.pdf (Accessed Dec 2023)

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