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Report prepared for: Gill Hudson Homes Ltd

For the Site of: Pirton Hall, Shillington Road, Pirton, Herts, SG5 3HB

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Ecological reports are limited in shelf life, usually 12 to 18 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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Contents

0.0 Non-Technical Summary	3
0.1 Background	3
0.2 Results and Findings	3
1.0 Introduction.....	5
1.1 Aim	5
1.2 Site Information	5
1.3 Study Area	5
2.0 Methods.....	6
2.2 Limitations	6
3.0 Strategic Significance	7
4.0 Baseline Units	9
5.0 Post-Development Units.....	11
6.0 Results	13
6.1 Discussion	13
7.0 Conclusion.....	15
8.0 References	16

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 Pirton Hall, Shillington Road, Pirton, Herts, SG5 3HB, 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

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	+0.05	+1.15%
Hedgerow Units	n/a	n/a
Watercourse Units	n/a	n/a

A 10% increase for each unit type present is required and the trading rules for each habitat type must be met to meet the minimum statutory requirement.

The proposed development will result in a **+1.15% net gain** in Habitat Units on site and therefore does not meet this requirement.

As such, in order to meet the required 10% net gain for Habitat Units, a further **0.42 Habitat Units** will need to be achieved.

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

1.0 Introduction

1.1 Aim

The client, Gill Hudson Homes Ltd, has commissioned Cherryfield Ecology to undertake a BNG/BIA for the site of Pirton Hall, Shillington Road, Pirton, Herts, SG5 3HB.

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 site consists of buildings, vegetated garden, developed land; sealed surface, individual trees and artificial unvegetated; unsealed land.

The proposed development includes for demolition of part of a building and a new residential development.

1.3 Study Area

The site is 0.97 Ha in size. The national grid coordinates for the centre of the site are TL 12561 32893.

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 from 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 Strategic Significance

Based on 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	Distance and Direction to Nearest (m/km)	Description
Statutory sites	~1691m S	Knocking Hoe SSSI
	~1691m S	Knocking Hoe NNR
	~727m S	Chilterns AONB
Granted protected species licenses	~1643m SE	2010-1822 - common pipistrelle <i>Pipistrellus pipistrellus</i> , brown long eared <i>Plecotus auritus</i>
	~1633m SE	2013-5820 and 2018-37658 - common pipistrelle, brown long eared, natterer's <i>Myotis nattereri</i> , soprano pipistrelle <i>Pipistrellus pygmaeus</i>
Priority habitat	~1981m SW	Wood-Pasture and Parkland
	~1518m SE	Traditional Orchard
	Adjacent to site	Deciduous Woodland
	~511m SW	Ancient & Semi-Natural Woodland
	~801m N	Lowland Meadows
	~367m SSE	Lowland Calcareous Grassland

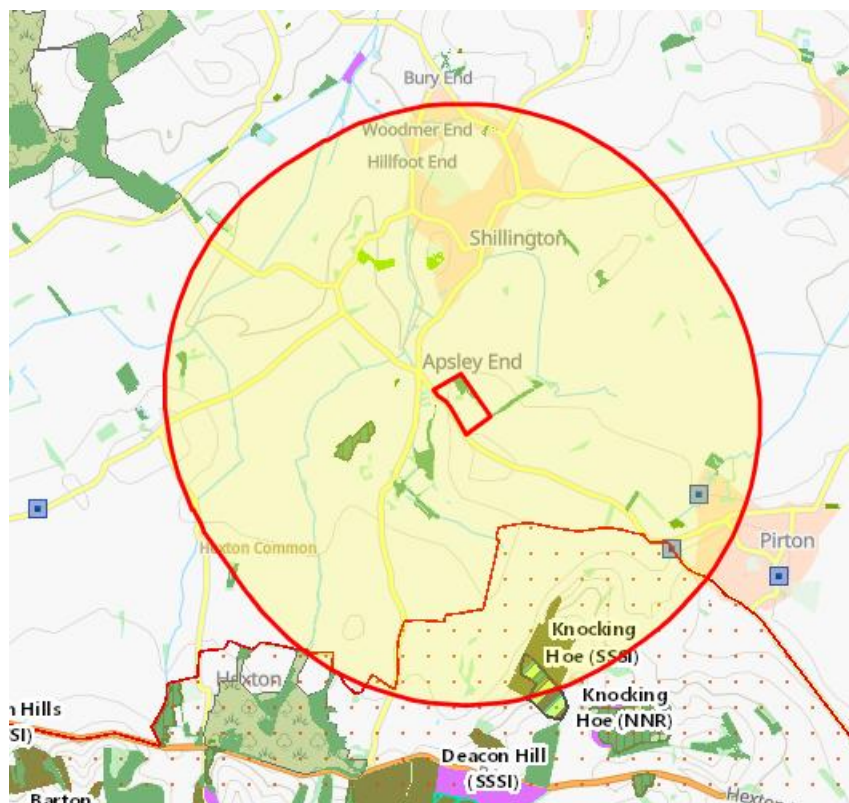


Figure 1: MAGIC.

Based on the Hertfordshire Local Nature Recovery Strategy (Hertfordshire Nature Recovery Partnership - HNRP), there are no mapped measures within the site boundary, therefore, no strategic significance has been assigned.

4.0 Baseline Units

The UK Hab survey map used to assess the baseline is provided in Figure 2. Please refer to the Ecological Appraisal (Cherryfield Ecology, 2025) for full site details and to the separate Excel sheet for full condition assessments.

The following table summarises the baseline habitat value on-site. There are no hedgerow or watercourse features present.

Table 3: On-Site Baseline Habitat Value

Baseline Units	Total Net Unit
Habitat Units	4.71
Hedgerow Units	n/a
Watercourse Units	n/a



Figure 2: Baseline Habitats Site Plan.

5.0 Post-Development Units

Proposed site plans “PDF DRAFT 2 2414.PL.11 13.07.26 Pirton Hall full drawing” were provided by the Client and used to calculate the Biodiversity Units post-development. Please see the separate Excel sheet for the assumed post development condition assessments.

The following table summarise the post-development habitat and hedgerow value on-site. There are no watercourse features present.

Table 4: On-Site Post Development Habitat Value

Post Development Units	Total Net Unit
Habitat Units	4.77
Hedgerow Units	0.04
Watercourse Units	n/a

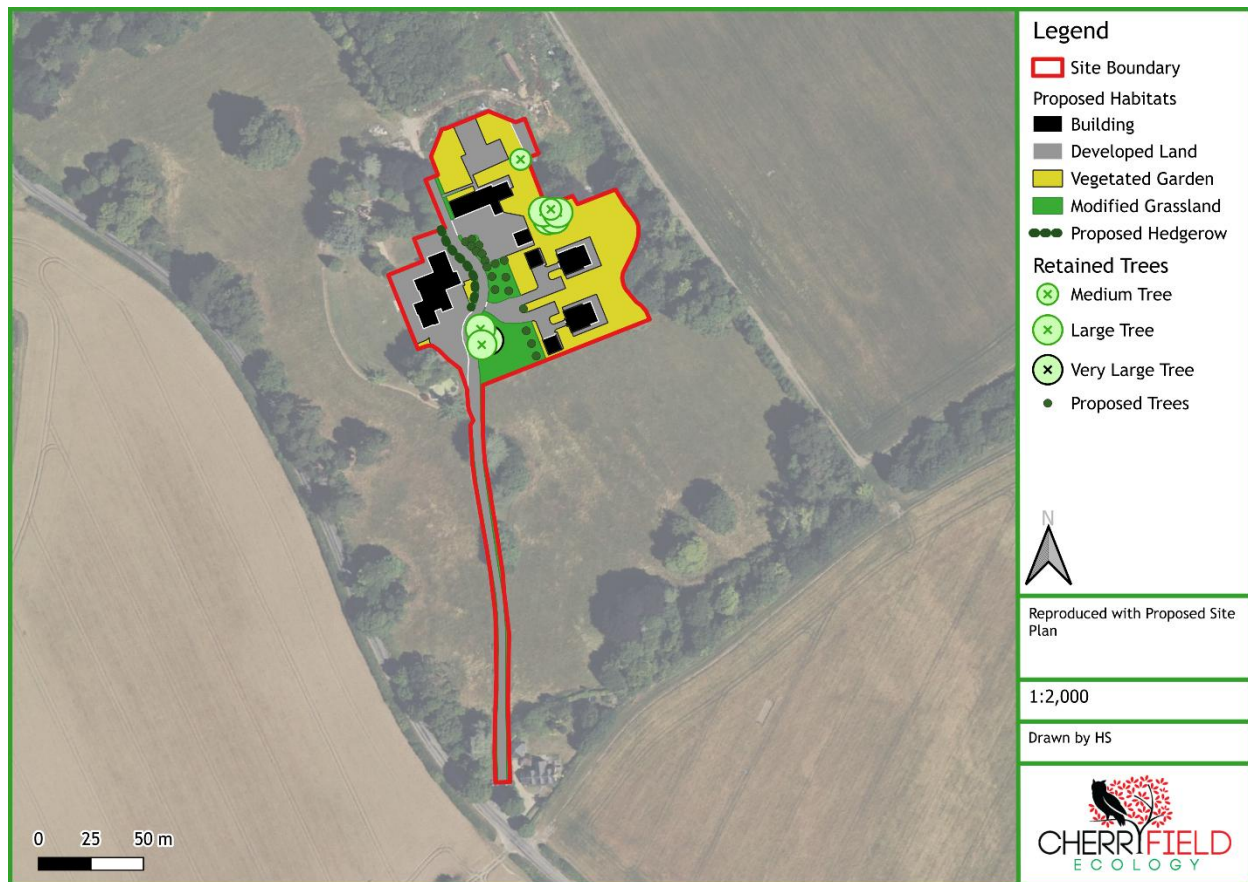


Figure 3: Proposed Habitats Site Plan.

6.0 Results

Table 7: Change in Biodiversity Net Gain (BNG) on site

BIA Units	Total Net Unit Change	Total Net % change
Habitat Units	+0.05	+1.15%
Hedgerow Units	n/a	n/a
Watercourse Units	n/a	n/a

6.1 Discussion

The mitigation hierarchy is the cornerstone of achieving net gain. It is a sequence of mitigation actions as described in Table 8.

Table 8: 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 effects.
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 9 outlines how the mitigation hierarchy has been applied to this site.

Table 9: 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	All trees will be retained as part of the proposals. Most of the areas of lawn, ornamental planting and hardstanding will be retained. B1 and B3 will be partly retained, whilst B4 and B5 will be fully retained.
	Enhance	There are no habitats on site that can be enhanced.
Compensation	On-site creation	Two dwellings and associated garages and two other garages will be created. A new area of tarmac driveway will be installed in front of B1 and the new dwellings. An area outside of the residential gardens will be laid to modified grassland, with a number of new trees planted over.
	Off-site creation	As a 10% gain has not been achieved on site, 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 and the trading rules for each habitat type must be met to meet the minimum statutory requirement.

The proposed development will result in a **+1.15% net gain** in Habitat Units on site and therefore does not meet this requirement.

As such, in order to meet the required 10% net gain for Habitat Units, a further **0.42 Habitat Units** will need to be achieved.

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

8.0 References

Cherryfield Ecology (2025), Ecological Appraisal Report.

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