

Report for: Paul Smith

Commissioned by: Christine Waller

Biodiversity Net Gain Assessment



Lagonda Stud, Pottersheath, Welwyn, AL6 9SU

Report No: 3303
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SUMMARY

On the instructions of Christine Waller on behalf of Paul Smith, MS Ecology carried out a Biodiversity Net Gain (BNG) Assessment for the site at Lagonda Stud, Pottersheath, Welwyn, AL6 9SU.

Proposals for the site include replacing the existing stable block with a new dwelling and garage.

The proposed development will result in a 10.38% BNG gain in Habitat Area Units with the trading rules satisfied.

This is due to the increase in vegetated land on site through the creation of additional garden areas. The loss of a single small tree is off set through the planting of three new trees within the paddock area.

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DOCUMENT CONTROL

Document Title:	Biodiversity Net Gain Assessment Lagonda Stud, Pottersheath, Welwyn, AL6 9SU
The Client:	Paul Smith

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Report Number 3303	Status FINAL	Date of issue 22/12/2025
Prepared by	Clifford Stuckey BSc (Hon's) PhD CEnv MCIEEM Ecologist	
Reviewed by		
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Biological Records of species identified during this survey, the date, their location and a brief description of the circumstances of their identification, may be passed on to Biological Records Centres, local wildlife groups, the Wildlife Trust, Natural England and other interested parties unless written instructions not to do so are received within 30 days of receipt of this report.

1 INTRODUCTION

1.1 INSTRUCTIONS AND OBJECTIVES

On the instructions of Christine Waller on behalf of Paul Smith, MS Ecology carried out a Biodiversity Net Gain (BNG) Assessment for the site at Lagonda Stud, Pottersheath, Welwyn, AL6 9SU.

Proposals for the site include replacing the existing stable block with a new dwelling and garage.

The aim of this report is to determine the Biodiversity Net Gain (BNG) for the proposed development and, where necessary, provide recommendations for increasing net gain.

BNG is an approach to developments that aims to measurably improve the natural environment from its previous state. The mitigation hierarchy is followed to first avoid the loss of biodiverse habitats, secondly to enhance and create biodiverse habitats on site and thirdly to seek off-site compensation as a last resort.

2 METHOD

2.1 BIODIVERSITY NET GAIN

This report uses the Statutory Biodiversity Metric (DEFRA, 2023) to make the calculations for the baseline biodiversity units and the post-development biodiversity units, to quantify the net gain of the development.

Supporting documentation for the Statutory Biodiversity Metric (listed below) is used and adhered to:

- Statutory biodiversity metric: draft user guide
- Statutory biodiversity metric condition assessments

2.1.1 DATA SOURCES

QGIS Open-Source software and Google Earth are used to measure and calculate the habitat areas and lengths.

The Ecological Impact Assessment (MS Ecology, Ecological Consultants, 2025) was used to determine the baseline habitats.

404_PL07-A_PROPOSED SITE PLAN was used to determine the post-development habitats.

2.2 SURVEYOR INFORMATION

This report and the BNG calculation, has been carried out by Dr Clifford Stuckey BSc (Hons), PHD, CEnv, MCEEIM.

2.3 LIMITATIONS

Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour and the ecological survey of this site has not produced a complete list of plants and animals. Nevertheless, the results of the ecological survey allow evaluation of nature conservation value, assessment of the significance of potential impacts that may arise from the proposals and consideration of appropriate mitigation measures.

3 RESULTS

3.1 SITE LOCATION AND SETTINGS

The site is centred on OS NGR TL 23994 18290, post code, AL6 9SU.

The site is surrounded by moderate density residential housing, with pasture and grassland dominating the search area.

Bodies of water are located ~548m north, ~190m & ~305m east, ~920m south-west, ~976m west, ~965m & ~868m north-west, a collection of small water bodies are located ~812m north.

No significant water courses are within a 1km radius of the site.

Copses dominate the search area with significant areas of woodland located ~122m east (Pond Plantation), ~281m north (Ninning's Wood), ~300m east (Mardley Heath) and ~416m south-east (Aunt's Wood).

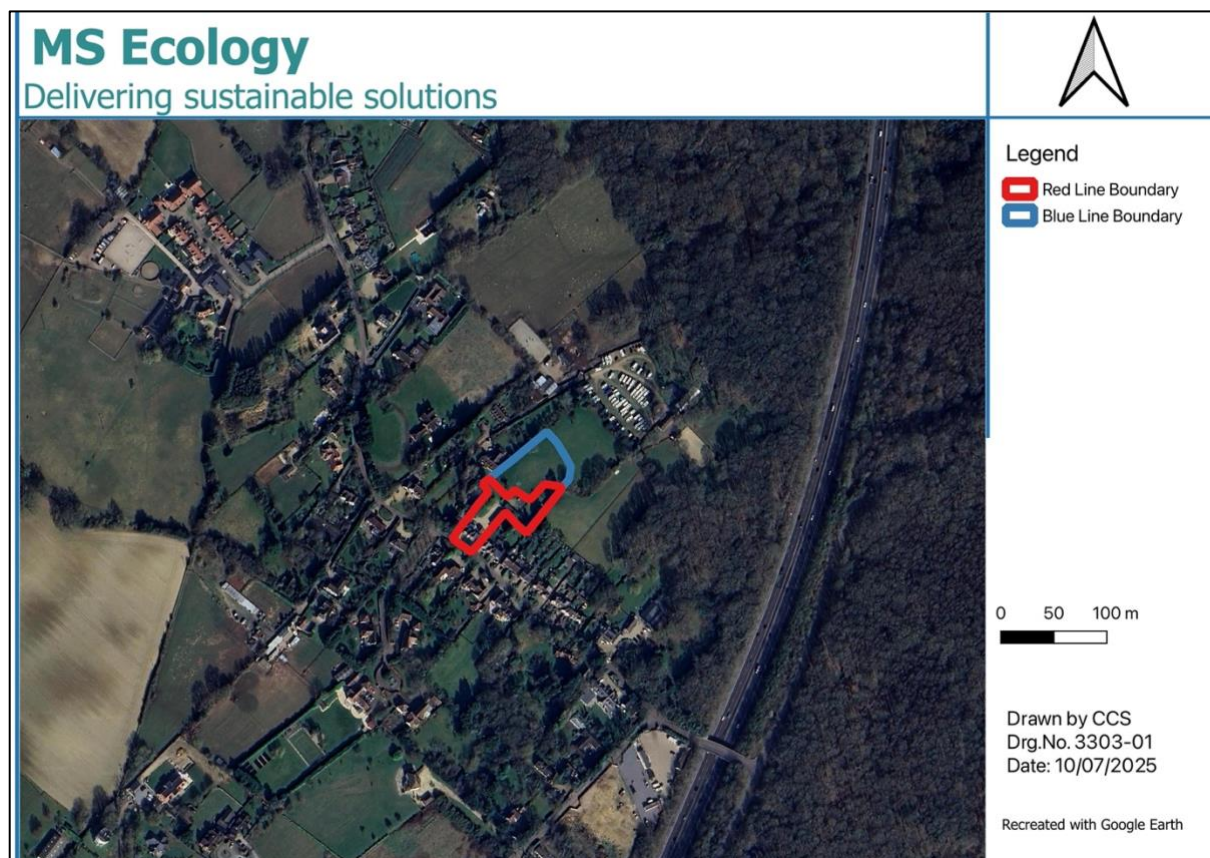


Figure 3-1 Location of proposed development area with red line boundary.

3.2 DESK STUDY

Interrogation of the Multi-Agency Geographic Information for the Countryside (MAGIC) showed that the site falls into the SSSI Impact Risk Zones for Knebworth Woods (SSSI) located ~3.2km north-west, Tewinbury (SSSI) ~4.7km south-east & Sherrardspark Wood (SSSI) ~3.8km south.

Three Local Nature Reserves (LNR) were returned within the search area.

- Mardley Heath ~300m east
- Singlers Marsh ~1.3km south-west
- Danesbury Park ~1.1km south-west

Two Natural England Protected Species licences (NEPS) were granted within the search area:

- Brown Long-eared, License No. 2016-26597-EPS-MIT, 01/12/2016, ~1.3km south-east
- Common Pipistrelle, License No. 2018-36237-EPS-MIT, 31/08/2023, ~1.4km south-east.

The following priority habitats are found close to the site:

- Good quality semi-improved grassland ~1.1km south-west.
- New Wood - Ancient & Semi-Natural Woodland - ~1.3km north-west
- Park Wood - Ancient & Semi-Natural Woodland - ~1.4km north
- Ninning's Wood - Ancient & Semi-Natural Woodland - ~265m north-east
- Legs & Stockings Wood - Ancient & Semi-Natural Woodland - ~485m north-east
- Mardley Heath - Ancient & Semi-Natural Woodland - ~328m east
- Broker's Garden Wood - Ancient & Semi-Natural Woodland - ~911m east
- Puttockhill Wood - Ancient & Semi-Natural Woodland & Ancient Replanted Woodland - ~1.3km south
- Hazel Grove - Ancient & Semi-Natural Woodland - ~1.6km south
- Harmergreen Wood - Ancient & Semi-Natural Woodland - ~1.3km south-east
- Deciduous Woodland is found throughout the search area. The closest point located ~100m east.
- 5 areas of Traditional Orchards are found within the search area. ~66m north-east, ~1.4km north-west, ~887m west, ~1.3km south-west & ~1.2km east.

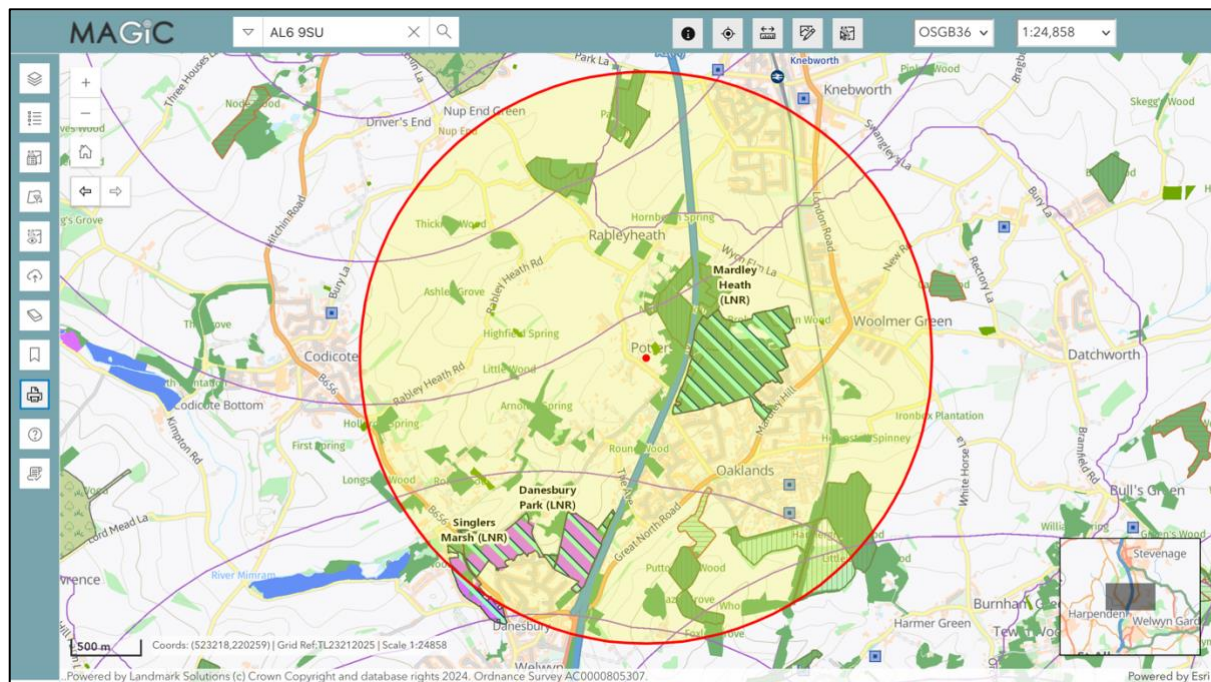


Figure 3-2 MAGIC Map

3.3 STRATEGIC SIGNIFICANCE

Based on the Hertfordshire Local Nature Recovery Strategy (Hertfordshire Nature Recovery Partnership-HNRP), the paddock area is designated as an ACIB (area that could become of particular importance to biodiversity). Habitat measures for this land are to 'Manage existing grassland and heathland to maintain the biodiversity of existing good quality habitats and enhance poor quality sites' (Action 1). Therefore, any measures that meet this target will be assigned 'high' strategic significance.

3.4 BNG ASSESSMENT

3.4.1 BASELINE UNITS

The proposed development footprint comprises several former outbuildings, together with a garage unit, set within a hardstanding yard. All the units are used for occasional storage/workshop or parking only.

The pre-development habitats on site were entered into the Statutory Biodiversity Metric and the results are summarised below. There are no linear or watercourse habitats on site.

Table 3.1 Baseline Area Units

UKHab Classification	Condition	Area (ha)	Units
Developed Land; Sealed Surface	N/A	0.047	0.00
Artificial Unvegetated, Unsealed Surface	N/A	0.097	0.00
Unvegetated Garden	N/A	0.005	0.00
Vegetated Garden	N/A	0.065	0.13
Modified Grassland	Poor	0.061	0.12
Individual Tree	Moderate	0.0244	0.20
Total area units			0.45

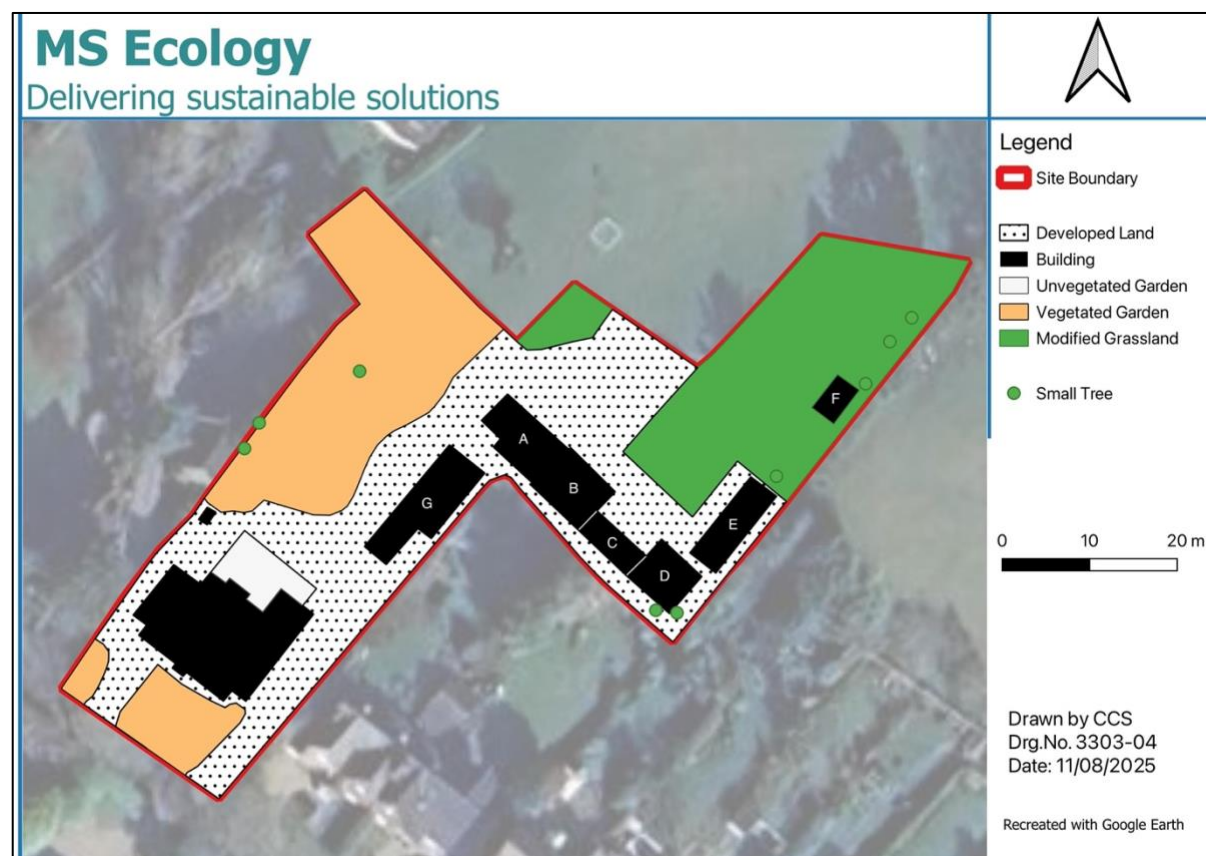


Figure 3-3 Baseline Habitat Map

3.4.2 POST-DEVELOPMENT UNITS

The post-development habitats proposed for the site were entered into the Statutory Biodiversity Metric and the results are summarised below.

Table 3.2 Post-development Area Units

UKHab Classification	Condition	Area (ha)	Units
Developed Land; Sealed Surface	N/A	0.113	0.00
Unvegetated Garden	N/A	0.011	0.00
Vegetated Garden	N/A	0.127	0.25
Modified Grassland - Retained	Poor	0.024	0.05
Individual Tree - Retained	Moderate	0.0204	0.16
Individual Tree - New	Moderate	0.0122	0.04
Total area units			0.49

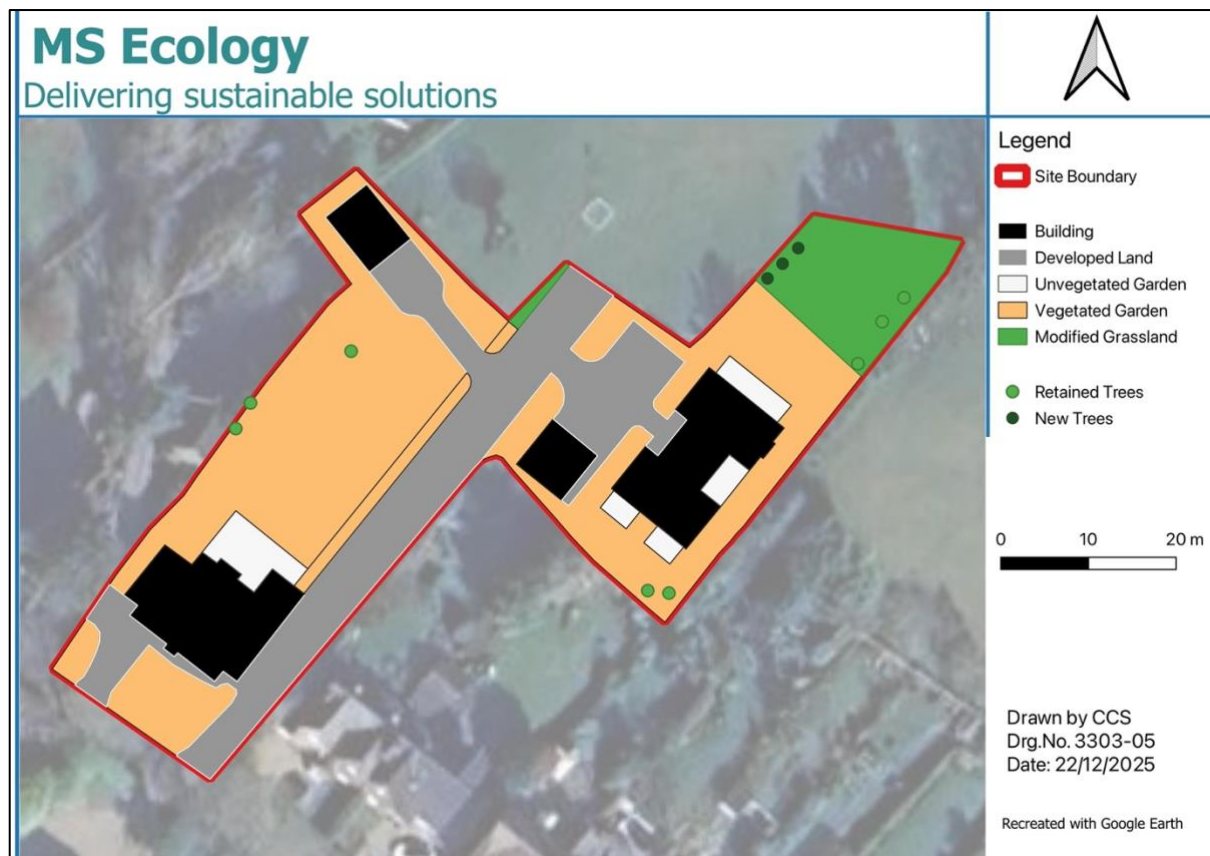


Figure 3-4 Post Development Habitats

4 DISCUSSION & CONCLUSION

4.1 BIODIVERSITY NET GAIN (BNG)

The proposed development will result in a 10.38% BNG gain in Habitat Area Units with the trading rules satisfied.

This is due to the increase in vegetated land on site through the creation of additional garden areas. The loss of a single small tree is off set through the planting of three new trees within the paddock area.