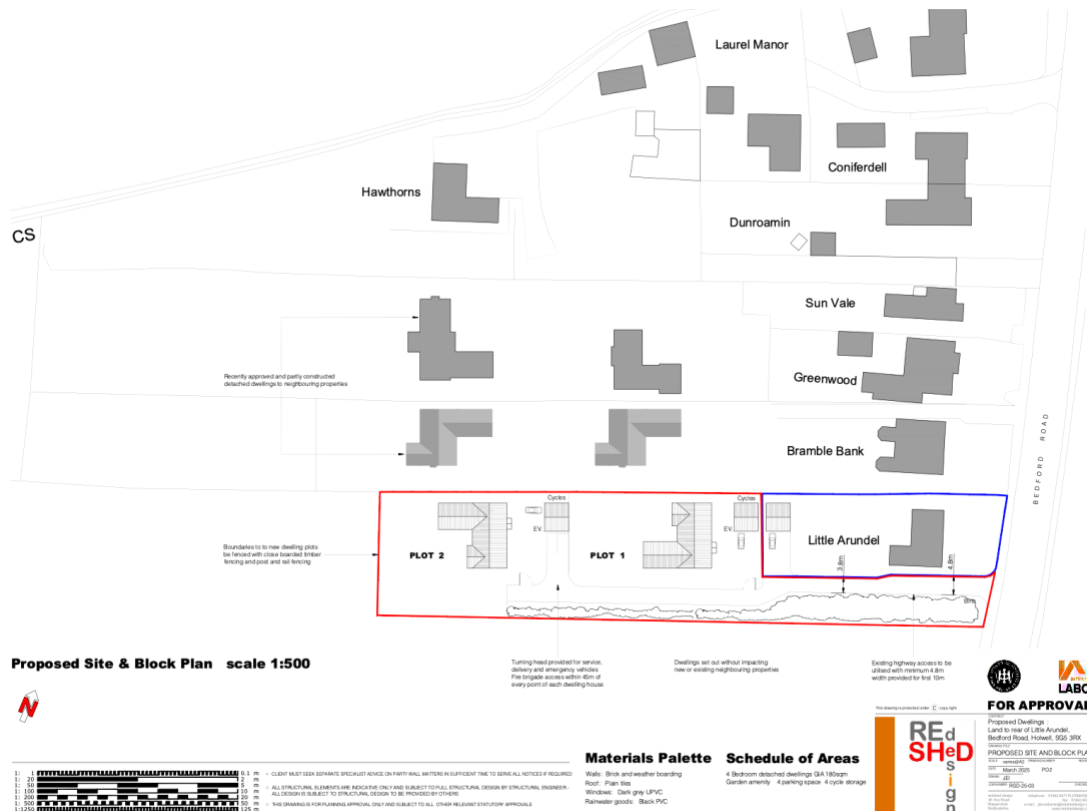


Report for: David & Annette Mardlin

Commissioned by: Tom Donovan



Biodiversity Net Gain Assessment

Proposed Development Site

Little Arundel, Bedford Road, Henlow, Hertfordshire SG5 3RX

Report No: 3288

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SUMMARY

On the instructions of Tom Donovan on behalf of David and Annett Mardlin, MS Ecology carried out an Ecological Impact Assessment for Little Arundel, Bedford Road, Henlow, Hertfordshire SG5 3RX.

Proposals for the site include the demolition of the front garage and several modern outbuildings to the south and to the rear adjacent to the southern boundary, replacing with two residential dwellings in the rear of the site.

The proposed development will result in a -17.72% BNG loss in Habitat Area Units with the trading rules not satisfied and a 106.84% BNG gain in Hedgerow Linear Units with the trading rules satisfied.

This is due to an increase in developed land area and subsequent decrease in vegetated area on site.

The medium silver birch tree will be retained, and the introduced shrub bed within which it is currently located will be extended and become an area of managed shrub along the access route. The leylandii hedge along the southern boundary will also be retained and will also be extended along the remainder of the access route.

To meet the required 10% gain, a further 0.21 Habitat Units are required, these can be of any distinctiveness level. It is understood that these units will be sourced via a habitat bank in the first instance.

Should Statutory Biodiversity Credits be considered, then 0.42 credits of Tier A1 will be required.

CONTENTS

1	INTRODUCTION.....	5
1.1	Instructions and Objectives	5
2	Method.....	6
2.1	BIODIVERSITY NET GAIN.....	6
2.1.1	Data Sources.....	6
2.2	Surveyor Information	6
2.3	Limitations.....	6
3	Results.....	7
3.1	Site Location and Settings	7
3.2	Desk Study.....	8
3.3	Strategic Significance	8
3.4	BNG Assessment.....	9
3.4.1	Baseline Units.....	9
3.4.2	Post-Development Units	11
3.4.3	BNG Gain/Loss.....	13
4	Discussion & Conclusion	14
4.1	Biodiversity Net Gain (BNG)	14

TABLES

Table 3.1	Baseline Area Units	9
Table 3.2	Baseline Linear Units	9
Table 3.3	Post-development Area Units	11
Table 3.4	Post-development Linear Units.....	11

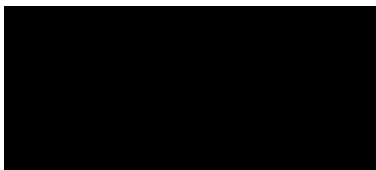
FIGURES

Figure 3-1	Location of proposed development area with red boundary.	7
Figure 3-2	MAGIC Map.....	8
Figure 3-3	Baseline Habitat Map	10
Figure 3-4	Post Development Habitats	12
Figure 3-5	Metric Headline results	13

DOCUMENT CONTROL

Document Title:	BNG Assessment Little Arundel, Bedford Road, Henlow, SG5 3RX
The Client:	David & Annette Mardlin

MS Ecology – ecological consultants, have prepared this report in accordance with the instructions of Tom Donovan on behalf of David & Annette Mardlin (“the Client”) in accordance with their Email instruction dated Monday 3rd Feb 2025 at 16:49. This report is confidential and non-assignable by the Client and **MS Ecology** shall not be responsible for any use of the report or its contents for any purpose other than that for which it was prepared and provided. Should the Client require to pass copies of the report to other parties for information, the whole of the report should be so copied, but no professional liability or warranty shall be extended to other parties by **MS Ecology** in this connection without the explicit written agreement thereto by **MS Ecology**.

Report Number 3288	Status FINAL	Date of issue 10/04/2025
Prepared by	Clifford Stuckey BSc (Hon's) PhD MCIEEM CEnv Ecologist	
Reviewed by		
Page no	Page 4 of 14	

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 Tom Donovan on behalf of David and Annett Mardlin, MS Ecology carried out an Ecological Impact Assessment for Little Arundel, Bedford Road, Henlow, Hertfordshire SG5 3RX.

Proposals for the site include the demolition of the front garage and several modern outbuildings to the south and to the rear adjacent to the southern boundary, replacing with two residential dwellings in the rear of the site.

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 (Morgan & Stuckey, Ecological Consultants, 2024) was used to determine the baseline habitats.

Proposed Site & Block Plan PO2 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 17167 34202, post code SG5 3RX.

The site is surrounded by arable fields and low-density residential housing.

The main body of the River Purwell is located ~1km east, with several tributaries extending throughout the vicinity of the site. The closest of these is ~100m to the north.

The closest waterbody is located ~450m to the northwest, with a further waterbody located ~500m to the southeast.



Figure 3-1 Location of proposed development area with red 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 Zone for Knocking Hoe SSSI ~5.1km south-west, Oughtonhead Lane SSSI ~4.2km south & Southill Lake & Woods SSSI ~8.9km north.

One Natural England Protected Species licences (NEPS) for bats (common pipistrelle) was granted within the search area, License No. EPSM2013-5803, located ~822m south-east.

An area of Coastal and Floodplain Grazing Marsh is located ~1.6km south-east.

An area of good quality semi-improved grassland is located ~1.4km east & south-east.

Deciduous Woodland is found sparsely throughout the search area. The nearest area is located ~615m east.

Four areas of Traditional Orchards were returned within the search area. Located ~80m west, ~1.3km north, ~1.97km & ~1.96km north-west.

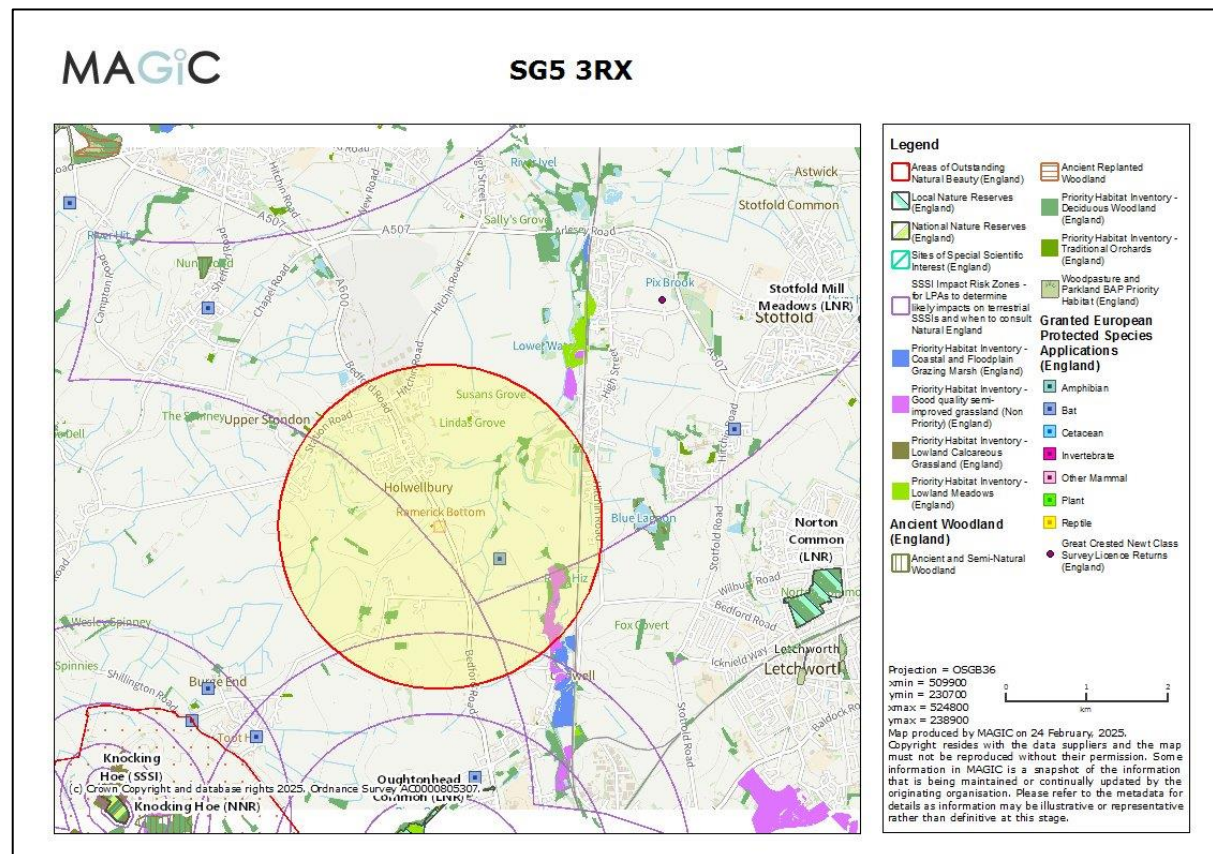


Figure 3-2 MAGIC Map

3.3 STRATEGIC SIGNIFICANCE

Based on the Hertfordshire Ecological Network Mapping the site falls into a 'cream' area which contain no mapped existing habitats of any significance and is therefore assigned low strategic significance.

3.4 BNG ASSESSMENT

3.4.1 BASELINE UNITS

The site is accessed from the Bedford Road via a gravel track, running between the garage and the main dwelling. Immediately beyond the garage is a parking area and an area of introduced shrub before a log cabin, greenhouses and a single storey bungalow. Beyond the bungalow the garden consists of closely cropped lawn. There is a concrete garage in the far northwest corner with two small trees within the site boundary. Beyond the boundary is an agricultural field to the north with residential buildings to the east leading to Henlow Village.

The pre-development habitats on site were entered into the Statutory Biodiversity Metric and the results are summarised below.

Table 3.1 Baseline Area Units

UKHab Classification	Condition	Area (ha)	Units
Developed Land; Sealed Surface	N/A	0.096	0.00
Vegetated Garden	N/A	0.283	0.57
Medium Tree	Good	0.0163	0.20
Total area units			0.76

Table 3.2 Baseline Linear Units

UKHab Classification	Condition	Linear (km)	Units
Non-Native & Ornamental Hedgerow	Poor	0.056	0.06
Total linear units			0.06

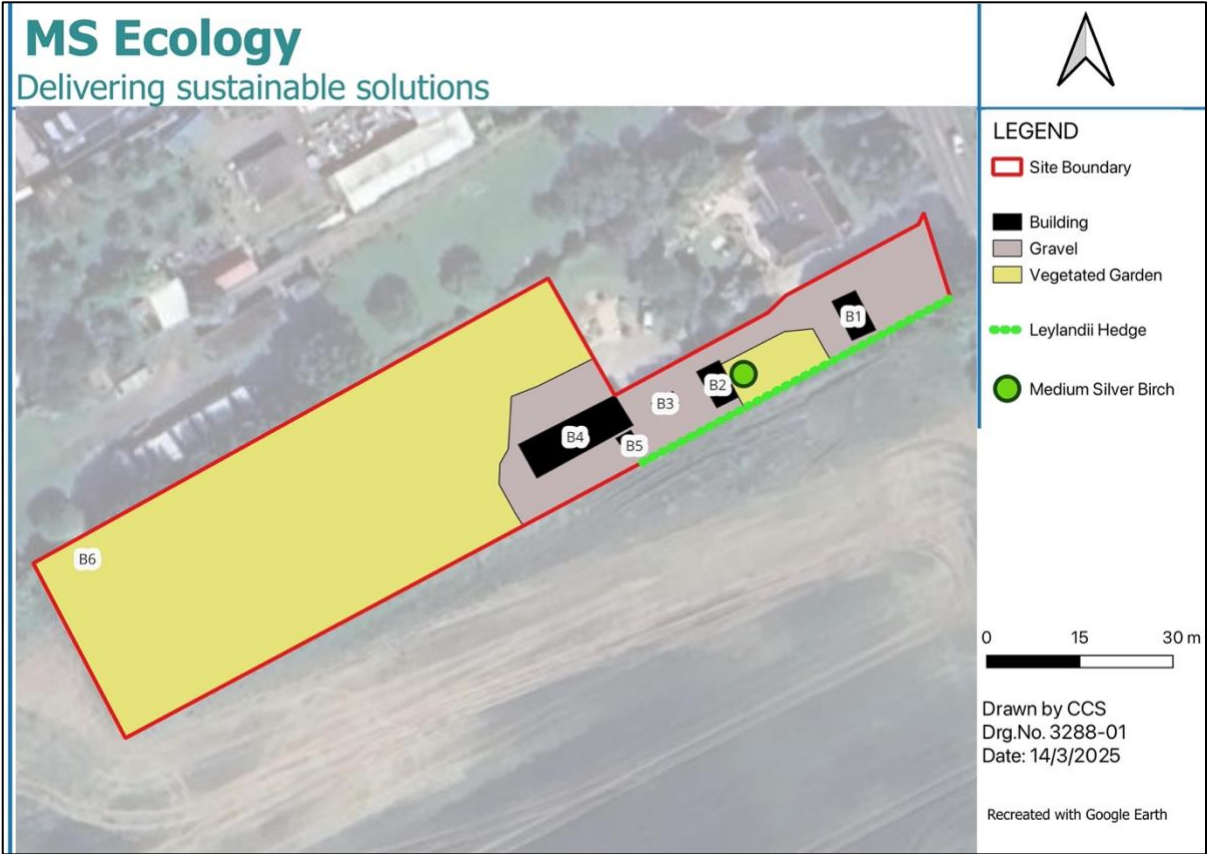


Figure 3-3 Baseline Habitat Map

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 3.3 Post-development Area Units

UKHab Classification	Condition	Area (ha)	Units
Developed Land; Sealed Surface	N/A	0.079	0.00
Vegetated Garden	N/A	0.147	0.29
Introduced Shrub	N/A	0.071	0.14
Medium Tree (Retained)	Good	0.0163	0.20
Total area units			0.63

Table 3.4 Post-development Linear Units

UKHab Classification	Condition	Linear (km)	Units
Non-Native & Ornamental Hedgerow (Retained)	Poor	0.079	0.06
Non-Native & Ornamental Hedgerow (New)	Poor	0.062	0.06
Total linear units			0.12

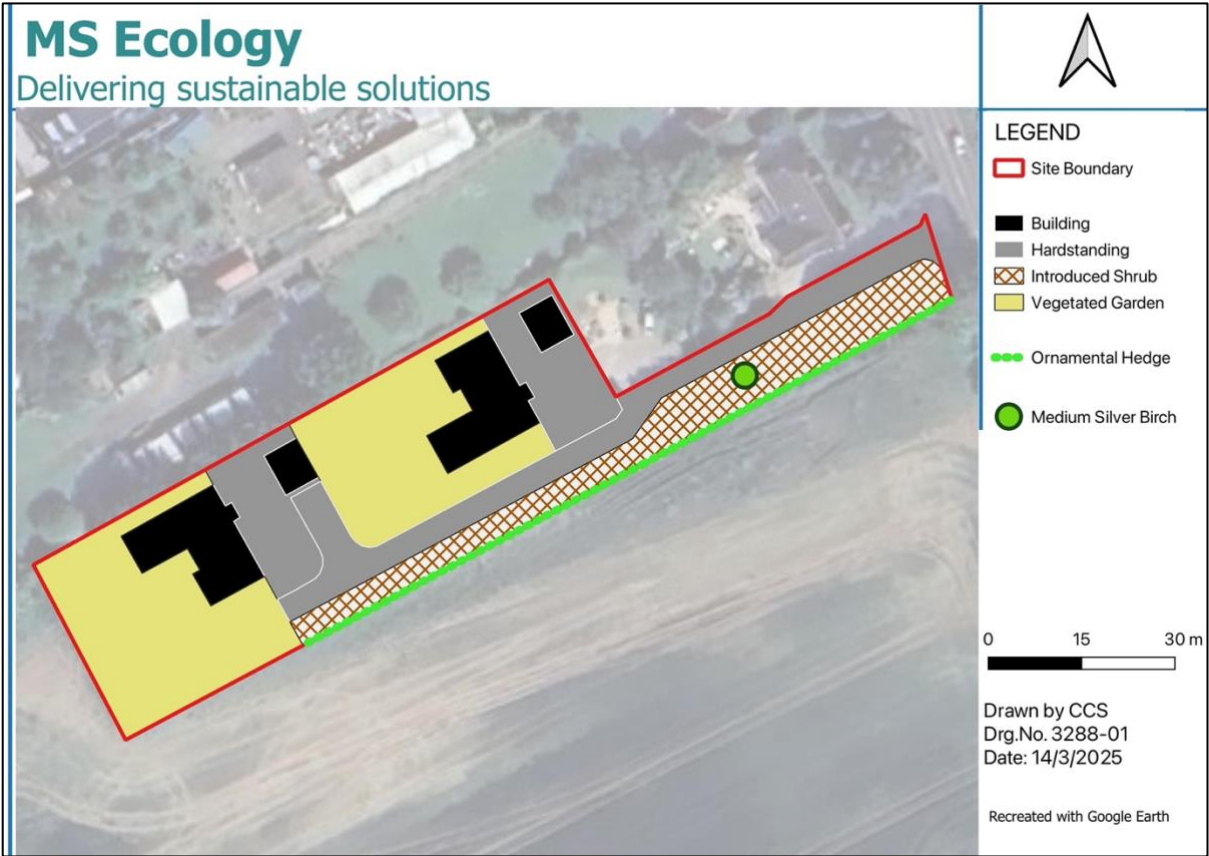


Figure 3-4 Post Development Habitats

3.4.3 BNG GAIN/LOSS

The proposed development will result in a -17.72% BNG loss in Habitat Area Units with the trading rules not satisfied and a 106.84% BNG gain in Hedgerow Linear Units with the trading rules satisfied.

Little Arundel, Bedford Road, Henlow, Hertfordshire

Return to results menu

Headline Results

Scroll down for final results

On-site baseline

Habitat units0.76

Hedgerow units0.06

Watercourse units0.00

On-site post-intervention

(Including habitat retention, creation & enhancement)

Habitat units0.63

Hedgerow units0.12

Watercourse units0.00

On-site net change

(units & percentage)

Habitat units-0.13

Hedgerow units0.06

Watercourse units0.00

-17.72%

106.84%

0.00%

On-site net gain is less than target set

Off-site baseline

Habitat units0.00

Hedgerow units0.00

Watercourse units0.00

Off-site post-intervention

(Including habitat retention, creation & enhancement)

Habitat units0.00

Hedgerow units0.00

Watercourse units0.00

Off-site net change

(units & percentage)

Habitat units0.00

Hedgerow units0.00

Watercourse units0.00

0.00%

0.00%

0.00%

Combined net unit change

(Including all on-site & off-site habitat retention, creation & enhancement)

Habitat units-0.13

Hedgerow units0.06

Watercourse units0.00

Spatial risk multiplier (SRM) deductions

Habitat units0.00

Hedgerow units0.00

Watercourse units0.00

FINAL RESULTS

Total net unit change

(Including all on-site & off-site habitat retention, creation & enhancement)

Habitat units-0.13

Hedgerow units0.06

Watercourse units0.00

Total net % change

(Including all on-site & off-site habitat retention, creation & enhancement)

Habitat units-17.72%

Hedgerow units106.84%

Watercourse units0.00%

Total net gain achieved is less than target set

Trading rules satisfied?

No - Check Trading Summaries

Unit Type

Target

Baseline Units

Units Required

Unit Deficit

Habitat units

10.00%

0.76

0.84

0.21

Hedgerow units

10.00%

0.06

0.06

0.00

Watercourse units

10.00%

0.00

0.00

0.00

No additional hedgerow units required to meet target

No additional watercourse units required to meet target

Input errors/rule breaks present in metric

Figure 3-5 Metric Headline results

4 DISCUSSION & CONCLUSION

4.1 BIODIVERSITY NET GAIN (BNG)

The proposed development will result in a -17.72% BNG loss in Habitat Area Units with the trading rules not satisfied and a 106.84% BNG gain in Hedgerow Linear Units with the trading rules satisfied.

This is due to an increase in developed land area and subsequent decrease in vegetated area on site.

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To meet the required 10% gain, a further 0.21 Habitat Units are required, these can be of any distinctiveness level. It is understood that these units will be sourced via a habitat bank in the first instance.

Should Statutory Biodiversity Credits be considered, then 0.42 credits of Tier A1 will be required.