

Biodiversity Net Gain Feasibility Report For Development at Green Acres, Tower Hill, Stoke on Trent

Commissioned by: Total Design

Author: Ashley Butler MSc

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Executive Summary

A Biodiversity Net Gain (BNG) assessment has been carried out for the site at Green Acres, Tower Hill. The proposed development is for the conversion of a modern agricultural building into a residential dwelling. The site covers an area of 0.16Ha of poor condition modified grassland, developed land and unsealed surface with a hedgerow boundary along the north and fenced boundaries to the south, east and west.

Statutory BNG of a minimum of 10% is feasible within the red line boundary. A BNG of 17.53% for habitat units and 61.37% for hedgerow units can be achieved with current plans.

The following actions contribute towards BNG onsite:

- Planting of 33m of native species hedgerow;
- Enhancing 0.0216ha of poor condition modified grassland to moderate condition modified grassland

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1. Introduction

This report was commissioned by Total Design to support a planning application for the conversion of an agricultural building to a residential dwelling.

A baseline habitat survey was carried out by NewWays Ecology in April 2026 to support the BNG feasibility assessment.

1.1. Development proposals

The proposed development includes the conversion of the building and creation of a garden area around it. The site covers an area of 0.16Ha of poor modified grassland, developed land and unsealed surface. The boundaries are fenced to the south, east and west with a native species hedgerow to the north.

The grassland was assessed as being in poor condition due to lack of diversity within the sward.

The planned development will require the loss of:

- 0.0709Ha of modified grassland
- 0.025Ha of unsealed surface

The recommendations in this report are based on the information provided by the client. Any changes to the proposed plans will require further assessment.

All other habitats on site will be retained.

All new and retained habitats will be managed in perpetuity for the benefit of biodiversity.

Habitat Baseline

Table 1 provides a breakdown of the habitat units delivered by each existing on-site habitat.

Table 1 On Site Habitat Baseline

Habitat Type	Area (hectares)	Units
Modified grassland (poor)	0.0925	0.19
Developed land sealed surface	0.024	0.00
Artificial unvegetated unsealed surface	0.0412	0.00
Total		0.19

Habitat Type	Length (km)	Units
Native hedgerow	0.03	0.18
Total		0.18

Biodiversity Metric 4.0 – On Site Post Development Habitats Retained and/or Enhanced

Table 2 provides a breakdown of the habitats currently on site that will be retained and/or enhanced through appropriate management post development.

Table 2 On Site Habitat Baseline

Habitat Type	Retained or enhanced	Units
Modified grassland (poor)	0.0216 (enhanced to modified grassland moderate)	0.07
Developed land- sealed surface	0.024 (retained)	0.00
Artificial unvegetated unsealed surface	0.0159 (retained)	0.00
	Total	0.07

Habitat Type	Retained or enhanced	Units
Native hedgerow	0.03 (retained)	0.18
Total		0.18

Habitats Created

Table 3 provides a breakdown of the habitats to be created post development to achieve biodiversity net gain.

Table 3. On site Habitat Creation

Habitat Type	Area (Ha)	Units
Developed land- sealed surface	0.028	0.00
Unvegetated garden	0.0188	0.00
Vegetated garden	0.0746	0.14
	Total	0.14

Habitat Type	Length (km)	Units
Native hedgerow	0.033	0.11
Total		0.11

On-site Post Intervention

Overall on-site habitats post development

Habitat Type	Area (Ha)	Units
Artificial unvegetated – unsealed Surface	0.0159	0.00
Developed land- sealed surface	0.0268	0.00
Modified grassland (moderate)	0.0216	0.07
Unvegetated garden	0.0188	0.00
Vegetated garden	0.0746	0.14
	Total	0.21

Habitat Type	Length (km)	Units
Native hedgerow	0.033	0.11
Native hedgerow	0.03	0.18
Total		0.29

Results Summary

The habitat enhancement and creation detailed above will result in a net gain of 17.53% of habitat units with trading rules satisfied and 61.37% of hedgerow units. Included below is a screenshot of the headline results table from the Biometric xls.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Area habitat units</i>	0.03
	<i>Hedgerow units</i>	0.11
	<i>Watercourse units</i>	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Area habitat units</i>	17.53%
	<i>Hedgerow units</i>	61.37%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	Yes ✓	

2. Survey Methodology

2.1 Habitat Survey

The Habitat Survey consisted of a walkover assessment of the site using UK Habs Survey methodology. This is a standard technique for classifying and mapping British habitats. All areas within the site were surveyed and assessed for indicators of ecological value, including the presence or signs of any protected or rare species.

2.2. BNG Assessment

The BNG assessment was carried out using the Statutory biodiversity Metric calculation Tool version 1.0.4. following published guidelines. A baseline habitat map was created and potential habitat creation and enhancement discussed with the client to achieve net gain on site.

2.3. Limitations

It is possible that some species may have been overlooked in the field or were not recorded because they were not evident at the time of surveys. No account can be taken for the presence or absence of a species on any particular day.

2.4. Personnel

The site walkover survey and the BNG assessment was carried out by Ashley Butler MSc of NewWays Ecology Ltd. This report has been undertaken following relevant CIEEM Guidelines

Barn at Green Acres - Baseline Habitats



Figure 1: Baseline Habitats

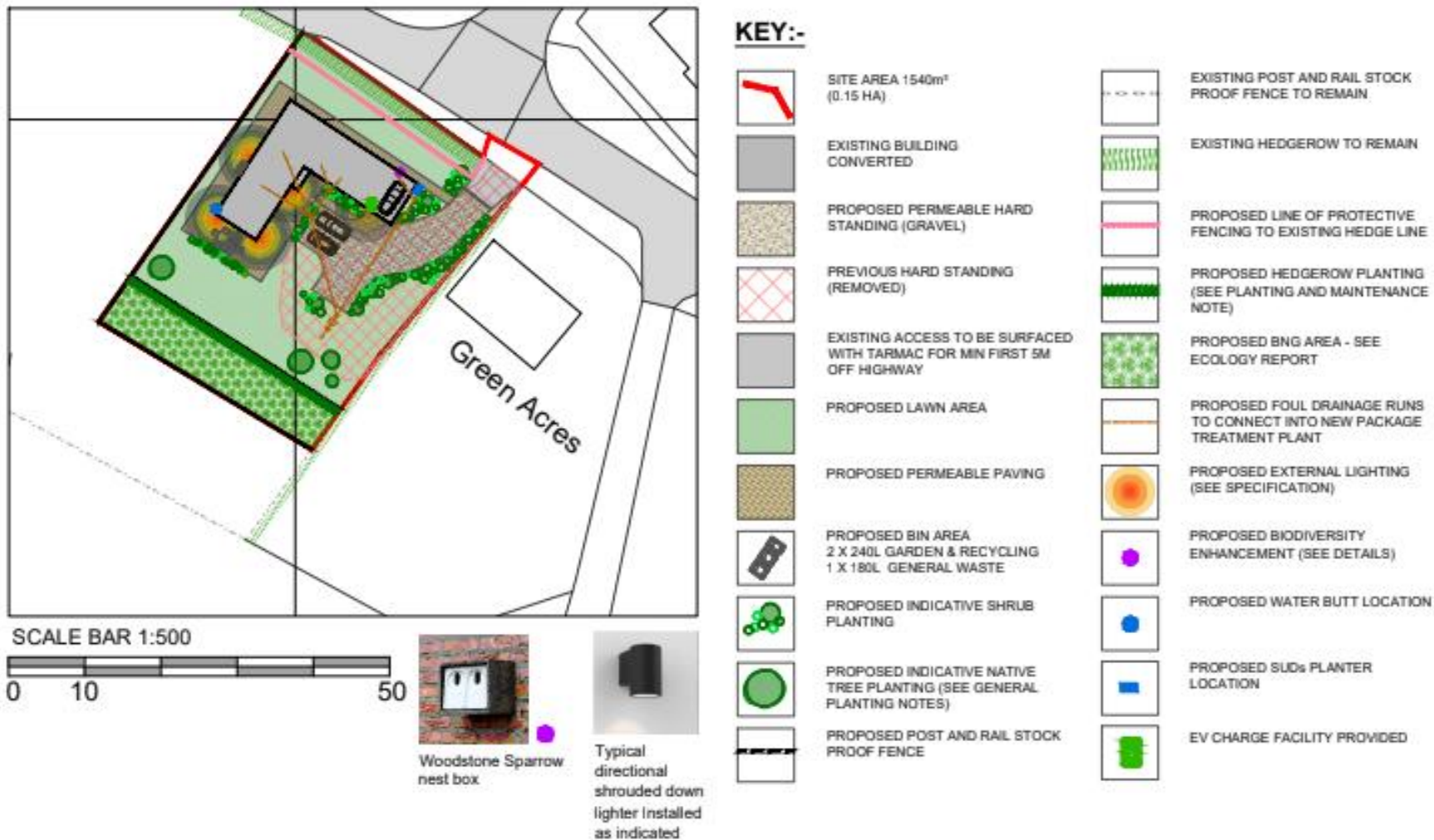


Figure 2: Proposed plans

Barn at Green Acres - Post Development Habitats

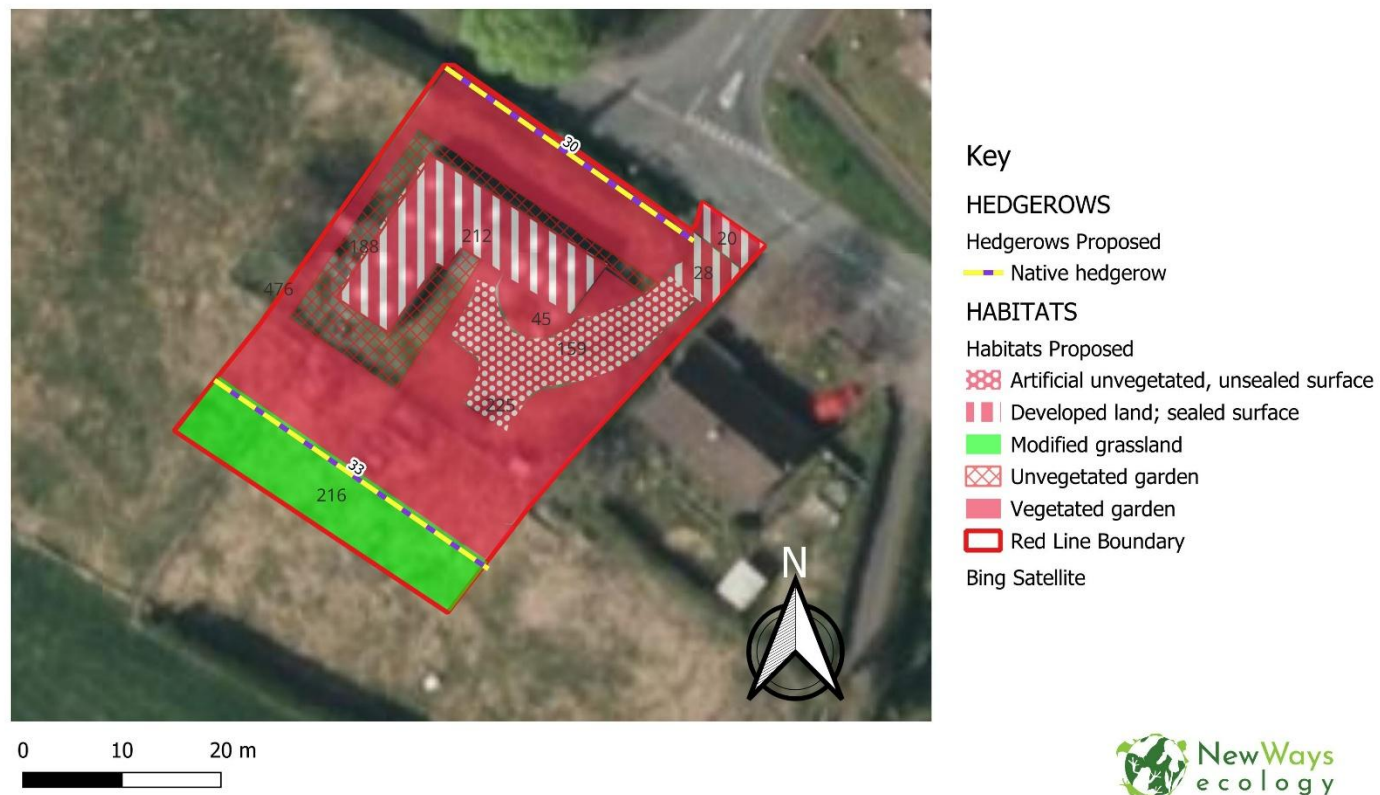


Figure 3: Proposed habitats

Conclusion

NewWays Ecology was commissioned to produce a Biodiversity Net Gain feasibility report for the site at Green Acres, Tower Hill to review the feasibility of providing statutory BNG on site.

The site is subject to a planning application for the conversion of a steel frame agricultural building to a residential dwelling.

A BNG of greater than 10% can be achieved on site for habitat and hedgerow units with the proposals listed above.