

Land at Station Road, Bagworth,
Leicestershire

Biodiversity Net Gain Feasibility Study

Prepared by
Griffin Ecology Ltd.

On behalf of
A.R.Cartwright Ltd.

Project: GE 0768 bfs

We assist our clients to deliver a measurable net gain in biodiversity.

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1. Introduction

Griffin Ecology Ltd. has been commissioned by the client to compile a Biodiversity Net Gain (BNG) Feasibility Study in relation to the proposed development of land and buildings off Station Road, Bagworth, Leicestershire. The proposals comprise the construction of 46 residential dwellings with associated access roads, public open space, drainage infrastructure, and soft landscaping.

This report seeks to:

- Establish the baseline biodiversity value of the site using the Statutory Biodiversity Metric (v4.0);
- Evaluate the potential to achieve the mandatory 10% net gain in accordance with the Environment Act 2021;
- Identify likely impacts on habitat area, distinctiveness, and condition as a result of the proposed development;
- Provide preliminary recommendations for on-site habitat enhancement or creation measures;
- Advise whether off-site compensation or statutory credits may be necessary to meet the net gain objective.

The findings of this feasibility study are intended to inform the development design, support planning submission, and assist in the preparation of a formal Biodiversity Gain Plan (BGP) post-determination.

This report should be read in conjunction with the following ecological reports prepared by Griffin Ecology Ltd.:

- Preliminary Ecological Appraisal and Roost Assessment with Biodiversity Statement (GE0768), dated July 2025

The BNG calculation has been undertaken using the Natural England Biodiversity Metric 4.0 (Statutory Version, 2024) and follows principles set out in the Biodiversity Net Gain: Good Practice Principles for Development (Baker et al., 2019).

Calculation of biodiversity net gain units has been undertaken using the Natural England Statutory BNG Metric Tool (October 2023) and follows guidance set out within the Biodiversity Net Gain: Good Practice Principles for Development (Baker et al., 2019).

This BNG Assessment aims to:

- Follow the good practice principles set out in the informing documents (Baker et al., 2019)
- Understand baseline conditions prevailing on site at the time of survey by; classifying the type, distinctiveness, condition, connectivity and strategic significance of habitats present prior to and post- development.
- Ensure that baseline habitat conditions are classified in a robust and consistent manner, and that classification is based on the most recent technical guidance provided to inform the metric.
- Calculate baseline pre- and post-development habitat units and hedgerows units for the site based on current development proposals
- Where possible, propose a measurable Biodiversity Net Gain (BNG) design through habitat creation, enhancement and succession.
- Aim to achieve BNG on-Site wherever possible; with off-site measures being considered as an alternative option if required.

Limitations

Ecological Survey Limitations

As is inherent in all ecological surveys, this study provides a snapshot of conditions prevailing at the time of the site visit and assessment. Seasonal variation, species behaviour, and management history may influence species presence and habitat condition in ways that are not fully captured in a single survey visit. Accordingly, this report should be interpreted in the context of time-bound ecological variability.

Statutory Biodiversity Metric Limitations

The Biodiversity Metric is a decision-support tool, not a prescriptive mechanism. The following caveats apply:

- In accordance with good practice guidance, habitat areas have been rounded to two decimal places, which may introduce minor discrepancies in total unit values, particularly on small or fragmented sites.
- Habitat distinctiveness and condition assessments are informed by professional judgement, particularly where standardised indicators are open to interpretation or constrained by habitat transitions or limited site access.
- The Metric does not account for species-specific ecological impacts, cumulative effects, or off-site ecological functionality unless specifically incorporated into the professional assessment.

Professional Interpretation

The planning system is not mechanistic. The Biodiversity Metric must be interpreted alongside ecological survey results, site-specific context, and expert opinion. As such, Griffin Ecology Ltd. provides this assessment as an independent ecological consultancy, applying professional judgement to interpret the metric outputs in the context of national planning policy and local ecological conditions.

The output values of the Biodiversity Metric are indicative and should not be considered determinative of planning decisions in isolation.

Future Design Changes

This BNG assessment is based on the current proposed layout and landscaping scheme. Should the design or land take change at any stage of the planning process or post-permission, the Metric calculation will need to be updated to reflect revised habitat loss, retention, or creation, and to ensure compliance with the 10% net gain requirement.

2. Planning Policy

The National Planning Policy Framework NPPF (2024) sets out within Section 15 Para 180 which states:

“Planning policies and decisions should contribute to and enhance the natural and local environment by:....

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;”

Additionally, Para 186 of the NPPF states:

“When determining planning applications, local planning authorities should apply the following principles:...

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.”

3. Biodiversity Net Gain: Good Practice Principles

When considering the good practice principles of Biodiversity Net Gain (BNG, CIEEM, CIRIA, IEMA, 2016) which provide a framework to help improve the UK's biodiversity by contributing towards strategic priorities to conserve and enhance nature while progressing with sustainable development, the following should be taken into account:

- 1: Apply the Mitigation Hierarchy – This principle prioritises the avoidance of impacts to most valuable habitats wherever possible.
- 2: Avoid losing biodiversity that cannot be offset by gains elsewhere.
- 3: Be inclusive and equitable.
- 4: Address risk – mitigate against difficulty, uncertainty and other risks to achieving net gain.
- 5: Make a measurable net gain contribution.
- 6: Achieve the best outcome for biodiversity.
- 7: Be additional – Achieve nature conservation outcomes that demonstrably exceed existing obligations.
- 8: Create a net gain legacy – ensure net gain generates long-term benefits.
- 9: Optimise sustainability.
- 10: Be transparent.

4. Methodology

To appropriately inform the assessment of habitat types, condition, and strategic significance, a comprehensive desk study and field-based habitat survey were undertaken. The following sources and tools were used to inform the baseline assessment:

4.1 Desk Study

A review of the following key information sources was carried out:

- **Hinckley and Bosworth Local Plan documents (Core Strategy and Development Management Policies);**
- **MAGIC Map (Multi-Agency Geographic Information for the Countryside);**
- **Leicestershire and Rutland Environmental Records Centre (LRERC);**
- **Local Nature Recovery Strategy (draft, if available);**
- **Historic aerial imagery and Ordnance Survey mapping;**

The results of this desk study are integrated within the accompanying Preliminary Ecological Appraisal (Griffin Ecology Ltd., July 2025), which provides a baseline description of the site's ecological features.

4.2 Biodiversity Metric and Strategic Assessment

The Statutory Biodiversity Metric (v4.0) has been used to calculate baseline biodiversity unit values and to inform habitat distinctiveness, condition scores, and linear feature assessments.

- A walkover habitat survey, in line with UKHab classification and Biodiversity Metric guidance, has been carried out to ground-truth habitat types, extent, and condition.
- Habitats have been assessed to determine whether they fall within strategically significant locations for biodiversity enhancement or recovery, in line with Natural England's guidance and draft Local Nature Recovery Strategy (LNRS) mapping for Leicestershire, Leicester and Rutland.

4.3 Mapping and Habitat Digitisation

Habitat areas and linear features have been measured using QGIS GIS mapping software, with habitat polygons digitised directly from aerial imagery and refined through field verification. Habitat areas have been rounded to two decimal places in accordance with best practice guidance.

4.4 Condition Assessment

Natural England's prescribed habitat condition assessment criteria (Statutory Biodiversity Metric – Technical Supplement) have been applied in the field to assess the baseline quality of habitats. Full details of the condition scoring, distinctiveness ratings, and supporting evidence are provided in the Preliminary Ecological Appraisal (Griffin Ecology Ltd., July 2025).

5. Calculation of Biodiversity Units

The Statutory Biodiversity Metric (October 2024) has been used to calculate the change in biodiversity units and the overall percentage of gain/loss achieved. Metric calculations have been undertaken by Casey Griffin BSc (hons) MCIEEM Ecologist having reviewed the available information. – See Appendix 1

This BNG Metric has been completed in consideration of the following documents:

- Updated Block Plan, Hayward Architects, Drawing Ref. 24/19 05d (July 2025);
- UKHab Baseline Habitat Map (Griffin Ecology Ltd., 2025);
- Preliminary Ecological Appraisal and Roost Assessment with Biodiversity Statement (GE0768);
- Site layout and planting information (provisional landscape strategy, pending detailed design).

This metric will need to be reviewed and updated accordingly should the proposed layout or landscaping be subject to change.

Onsite Baseline Habitats:

The site comprises predominantly modified grassland (UKHab: g4) of poor condition, with three linear hedgerows (h2a/h2a5) and minor elements of bramble scrub (h3d) and developed surfaces (u1b). Habitats have been mapped and assessed during a field survey in July 2025 using UKHab v2.0 in accordance with the Statutory Biodiversity Metric guidance.

The modified grassland is the dominant baseline habitat and reflects the site's historical use for horse grazing. It is species-poor and heavily disturbed, with dominance by ryegrass and white clover, alongside scattered herbs. This habitat has been confirmed to be of low distinctiveness and poor condition, failing the minimum threshold for moderate condition in the metric assessment.

Bramble scrub is confined to the western edge, forming a narrow, linear feature dominated by *Rubus* spp. This has been classified as h3d and considered to be in poor condition due to low structural diversity and limited extent.

No watercourses or ditches are present within the red line boundary. Artificial surfaces and buildings are excluded from the biodiversity unit calculation but have been mapped as u1b, u1b5 and u1c to complete the site inventory.

All baseline habitats have been mapped and assessed in accordance with the UK Habitat Classification (UKHab) v2.0 and the Statutory Biodiversity Metric 4.0.

Total Habitat Area = 2.17 ha

Table 1: Baseline Habitats

Habitat	Area (ha)	Condition	Habitat Units	Area retained (ha)	Notes
g4 modified grassland	2.02	poor	4.04	0.08	grassland retained within root protection areas to boundary features
u1b developed land sealed surface	0.06	n/a	0.00	0.00	existing buildings and yard
h3h bramble scrub	0.01	n/a	0.04	0.01	linear scrub along western boundary – retained as this area is adjacent to the SUDs and grassland proposed within BNG area
u1c artificial unvegetated and unsealed surface	0.08	n/a	0.00	0.00	existing yard and unsealed tracks
Total habitat units			4.08	0.09	-

Onsite Habitat Creation:

Table 2: Proposed Habitats

Habitat	Area (ha)	Condition	Habitat Units	Notes
u1b developed surface	0.9	n/a	0.00	Proposed buildings and developed surface – area rounded up to account for landscaping such as patio areas in gardens
u1b 8282 vegetated garden	0.52	n/a	1.00	Proposed garden space and front gardens within private curtilage
g4 modified grassland	0.04	poor	0.08	Areas of g4 grassland to the verges and frontages outside of private curtilage
g3c other neutral grassland	0.36	moderate	2.41	Large area of proposed grassland around the SUDs and for BNG purpose – public access will need to be monitored to achieve the proposed moderate target condition – subject to strict habitat management and monitoring plan
u1b6 – sustainable urban drainage feature	0.22	moderate	0.53	Large SUDs – proposed within flood plain area – engineered to retain water – landscaped and managed for biodiversity value – public access will need to be monitored and subject to strict habitat management and monitoring plan

w1 – other woodland	0.04	poor	0.13	Area of woodland planting to frontage and adjacent to Station road – target condition poor given extent and adjacent land use
h3h – mixed scrub	0.01	poor	0.04	mixed native scrub proposed within BNG area – subject to strict habitat management and monitoring plan
individual trees	0.1221	poor	0.34	30 small trees with a poor target condition proposed around development but outside of private curtilage
Resultant habitat units			0.17	g4 and bramble scrub
Total habitat units (with retained units)			4.74	This includes habitat creation and the retained units as a result of habitat protection on site

Resultant habitat units (post-development): 4.74

This includes all habitat creation and retained areas within the development boundary. The site achieves a net gain of +0.66 habitat units, representing a 16.2% increase over baseline. The 10% BNG requirement is therefore achievable entirely onsite.

Onsite Baseline Hedgerows:

All hedgerows were assessed against the Biodiversity Metric v4.0 condition sheets. None qualify as 'important' under the Hedgerow Regulations 1997. H1 was assessed as poor condition, while H2 and H3 achieved moderate condition.

Table 3: Baseline Hedgerows

Hedgerow	Length (km)	Condition	Hedgerow units	Length retained (km)	Notes
H1 – native hedgerow	0.14	poor	0.28	0.11	Partially lost to enable access - layout should seek to demonstrate a buffer to all retained hedgerows with them remaining outside of any private curtilage
H2 – species rich native hedgerow	0.04	moderate	0.32	0.04	full length retained – layout should seek to demonstrate a buffer to all retained hedgerows with them remaining outside of any private curtilage
H3 – native hedgerow with trees	0.06	moderate	0.48	0.04	partially lost to enable access - layout should seek to demonstrate a buffer to all retained hedgerows with them remaining outside of any private curtilage
Total hedgerow units			1.08	0.19	-

Onsite Hedgerow Creation:

Table 4: Proposed Hedgerows

Hedgerow	Length (km)	Condition	Hedgerow Units	Notes
TL1 – Ecologically valuable line of trees	0.9	moderate	0.35	length of tree line proposed along the western boundary - this will be within the BNG area and subject to strict HMMP
Resultant hedgerow units			0.86	g4 and bramble scrub
Total habitat units (with retained units)			1.21	This includes hedgerow creation and the retained units as a result of hedgerow protection on site

Resultant hedgerow units (post-development): 1.21

This includes newly created and retained hedgerows within the site boundary. The site delivers a net gain of 0.13 hedgerow units, achieving a 12% increase over baseline, and meeting the BNG requirement entirely onsite.

Biodiversity Net Gain Feasibility Assessment Summary

The proposed development will result in the loss of low distinctiveness modified grassland and the partial loss of two existing hedgerows to accommodate access. However, the development layout and landscape proposals incorporate new habitat creation, including other neutral grassland, sustainable drainage features, tree planting, and a new ecologically valuable tree line. Furthermore, existing modified grassland located within root protection areas and buffer zones to retained hedgerows, as well as the bramble scrub to the western boundary will be retained within the scope of development.

The baseline habitat unit value was calculated at 4.08 units. Post-development, the total habitat units are forecast to reach 4.74, representing a net gain of 0.66 units or 16.2% above baseline. Similarly, hedgerow units are predicted to increase from 1.08 to 1.21, representing a 12% net gain.

These gains are achieved fully on-site through a combination of retained habitats and well-designed, biodiversity-led habitat creation and enhancement measures. Key components include:

- Delivery of 0.36 ha of other neutral grassland in moderate condition around the SuDS feature
- Creation of 0.22 ha of a sustainable drainage feature designed for biodiversity gain
- Planting of 0.9 km of ecologically valuable tree line along the western boundary
- Retention of existing bramble scrub to the western boundary
- Inclusion of 30 individual trees located outside of private curtilage and subject to management and monitoring
- Creation and management of modified grassland on site

To ensure delivery and long-term success of these enhancements, a Habitat Management and Monitoring Plan (HMMP) will be required. The HMMP should include:

- Defined objectives and measurable targets
- Prescriptions for grassland, scrub, tree and SuDS maintenance
- Restricted access where needed to protect habitat condition (e.g. around SuDS)
- Monitoring schedule in line with BNG requirements (annual for first 5 years, then every 5 years)

Overall, the BNG assessment confirms that the development is capable of meeting and exceeding the statutory 10% net gain requirement for both habitat and hedgerow units, without the need for off-site compensation or statutory credits.

Biodiversity Net Gain Outcome

The proposed development results in a calculated net gain of 0.66 habitat units (+16.2%) and 0.13 hedgerow units (+12%). These gains exceed the statutory minimum 10% net gain requirement for both metric categories.

All units are delivered on-site through a combination of:

- Habitat retention including small amount of linear bramble scrub along the western boundary and g4 grassland within root protection areas and hedgerow buffers;
- Creation of higher distinctiveness and better condition habitats, including other neutral grassland and SuDS;
- Addition of ecologically valuable linear features, scrub, and woodland planting;
- Implementation of a robust Habitat Management and Monitoring Plan to maintain target condition over 30 years.

The BNG outcome demonstrates that the scheme complies with Schedule 7A of the Town and Country Planning Act 1990 (as amended by the Environment Act 2021) and aligns with the NPPF principles of securing measurable net gains for biodiversity through development. No off-site delivery or statutory biodiversity credits are required to meet BNG obligations.

This outcome will inform the preparation of the final **Biodiversity Gain Plan (BGP)** post-determination and will be essential for demonstrating compliance with both national legislation and local biodiversity policy objectives.

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Title: UK Habitats Baseline Map
Site: Land and buildings off Station Rd,
Bagworth
Date: July 2025

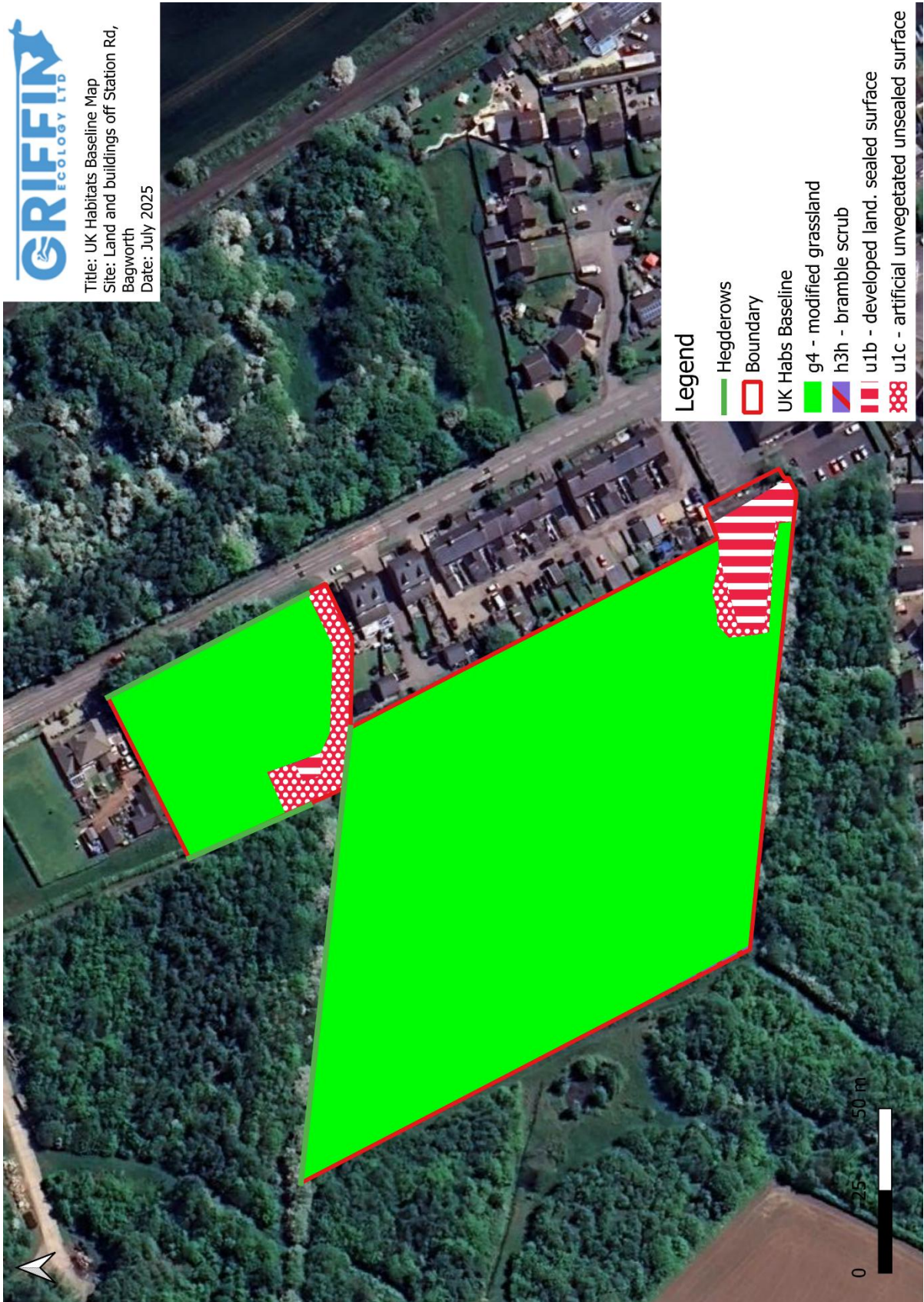


Figure 1: Baseline UK Habitats

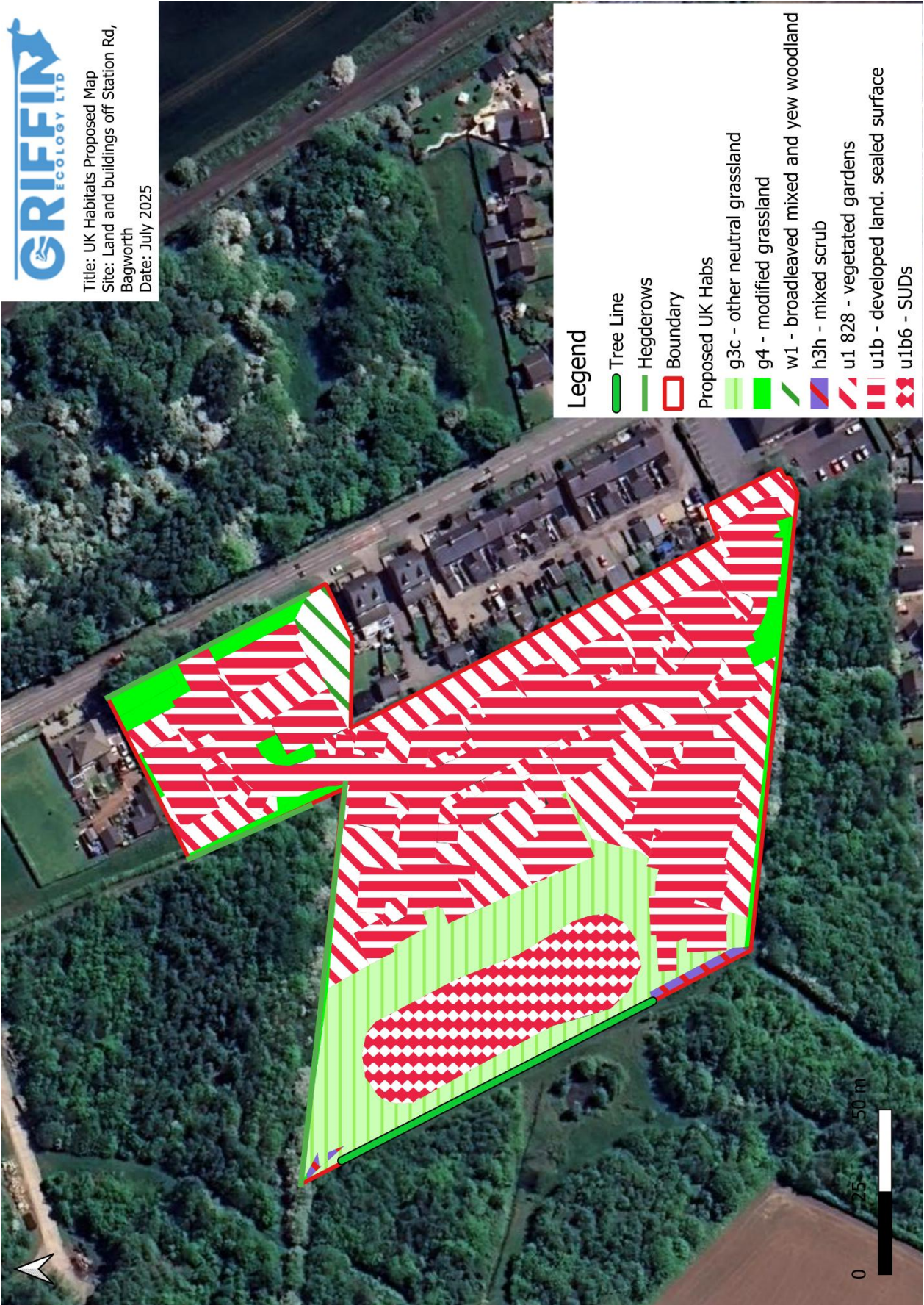


Figure 2: Proposed UK Habitats

6. Discussion and Conclusions

This Biodiversity Net Gain (BNG) Feasibility Study has been prepared in support of proposals to develop land at Station Road, Bagworth. The study has drawn on the results of the Preliminary Ecological Appraisal (Griffin Ecology Ltd., 2025) and habitat survey, alongside the application of the Statutory Biodiversity Metric v4.0, to establish whether the proposed scheme can deliver measurable BNG in accordance with national policy.

The baseline habitat condition was typical of disturbed, low distinctiveness sites, with the majority of the site comprising modified grassland in poor condition. Small areas of bramble scrub, hedgerow, and hardstanding were also present. While two of the three hedgerows scored moderate condition, none qualified as 'important' under the Hedgerow Regulations.

The development layout proposes the loss of the majority of grassland and small sections of two hedgerows to accommodate access. However, the scheme includes a comprehensive BNG strategy that delivers:

- Retention of habitat within buffer zones and root protection areas;
- Creation of species-rich neutral grassland, SuDS, scrub, tree and woodland planting;
- Establishment of an ecologically valuable tree line;
- Integration of garden and verge habitats with biodiversity value.

When assessed using the Biodiversity Metric 4.0, the proposals result in a net gain of 16.2% in habitat units and 12% in hedgerow units — both exceeding the 10% requirement.

These results demonstrate that BNG can be delivered wholly within the red line boundary, avoiding the need for off-site measures or statutory credits. A comprehensive Habitat Management and Monitoring Plan (HMMP) will be essential to ensure successful establishment and long-term maintenance of the target condition.

In conclusion, the proposed development is capable of delivering statutory BNG in a manner consistent with good practice and planning policy. The measures proposed provide a robust basis for the preparation of a formal Biodiversity Gain Plan to be submitted post-determination, and demonstrate a clear commitment to ecological enhancement through development.

In line with the requirements of the National Planning Policy Framework (NPPF), any significant biodiversity enhancements put forward as part of a BGP should be formally secured and delivered through a tailored Biodiversity Habitat Management and Monitoring Plan (HMMP). This plan must outline the proposed management regime and provide measurable outcomes for biodiversity net gain across the site for the minimum 30-year period.

Responsibility for Long-Term Management and Monitoring

The landowner and their appointed contractors will retain responsibility for implementing the actions specified within the approved HMMP. All habitat creation, enhancement, and maintenance must be carried out by appropriately qualified professionals.

Monitoring will be conducted to:

- Track habitat establishment and condition against the agreed targets;
- Ensure compliance with the timeframe set out in the HMMP;
- Inform adaptive management actions, where necessary.

Monitoring Schedule:

- Annually for the first five years (establishment phase);
- Every five years thereafter, for a total period of 30 years.

Monitoring will be undertaken by the appointed ecologist or other suitably qualified persons. Records of all monitoring and management actions must be maintained and made available for review by the Local Planning Authority or relevant statutory bodies upon request.

7. References

- **British Standards Institution (BSI)** (2021). *BS 8683:2021 Process for designing and implementing Biodiversity Net Gain – Specification*. BSI Standards Publication.
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- **DEFRA** (2023). *Biodiversity Metric 4.0: Technical Supplement* (Updated October 2023). Department for Environment, Food and Rural Affairs, London.
- **Environment Act** (2021). Chapter 30. London: The Stationery Office. Available at: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>
- **HM Government** (2023). *Biodiversity Net Gain: Statutory Guidance and Implementation Manual*. DEFRA and Natural England. Available at: <https://www.gov.uk/guidance/mandatory-biodiversity-net-gain>
- **Joint Nature Conservation Committee (JNCC)** (2023). *UK Habitats Classification (UKHab)* [Online]. Available at: <https://ukhab.org>
- **Ministry of Housing, Communities and Local Government (MHCLG)** (2021). *National Planning Policy Framework (NPPF)*. London: MHCLG. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>
- **Natural England** (2023). *Biodiversity Metric 4.0 – User Guide* (Statutory Version). Natural England, York.

Appendix 1: Statutory Metric as Proposed (See separate Statutory Biodiversity Metric attached.)

FINAL RESULTS		
Total net unit change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	0.66
	<i>Hedgerow units</i>	0.13
	<i>Watercourse units</i>	0.00
Total net % change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	<i>Habitat units</i>	16.06%
	<i>Hedgerow units</i>	12.32%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	Yes ✓	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
<i>Habitat units</i>	10.00%	4.08	4.49	0.00
<i>Hedgerow units</i>	10.00%	1.08	1.19	0.00
<i>Watercourse units</i>	10.00%	0.00	0.00	0.00

No additional area habitat units required to meet target ✓
 No additional hedgerow units required to meet target ✓
 No additional watercourse units required to meet target ✓