



Biodiversity Net Gain Assessment

Heath Lodge Farm, Newbold Heath

November 2024

Prepared by:

Brown&Co

The Fairways
Wyboston Lakes
Great North Road
Bedfordshire
MK44 3AL

Prepared for:

Jeff Freeman

Heath Lodge Farm
Bagworth Road
Newbold Heath
Leicestershire
LE9 9NR

Document Reference: BCEnv.24.0103.AP059114

Date of Issue: 24 November 2024

Revision Number: 01

Principal Author:



Senior Ecologist
Ryan Clark BSc (Hons) MSc ACIEEM

Authoriser:



Partner, Agricultural Business Consultancy
Greg Beeton MBA DipM BSc (Hons)

Declaration and Disclaimers

This document was prepared to the standard set out in the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct and makes every reasonable attempt to comply with the relevant best practice guidelines and BS42020:2013 (Biodiversity: Code of Practice for Planning and Development). All information and data set out in this report is true and based upon bona fide opinions and professional knowledge to the best of Brown & Co's knowledge at the time of writing.

Brown & Co has prepared this report for the sole use of the client under the conditions set out in the agreement under which this document was completed. No sections or excerpts of this report can be duplicated without the express written permission of Brown & Co and the client.

Validity – Adhering to current CIEEM guidance (CIEEM 2019), this report is considered valid for a period of 12 months and will no longer be considered valid and applicable for current assessments of Site/project ecological condition as of 16 October 2025.

IMPORTANT CONFIDENTIALITY INFORMATION – This report may contain sensitive wildlife data that could be detrimental if shared externally. As such, this report should not be placed in the public domain or shared with third parties without appropriate censorship.

1. Introduction

1.1 Project Background

Brown&Co was commissioned by Jeff Freeman in October 2024 to undertake a Biodiversity Net Gain Assessment at Heath Lodge Farm, Bagworth Road Newbold Heath, Leicestershire, LE9 9NR (NGR: SK44300557)—hereafter referred to as ‘the Site’.

The Site is a flat parcel of land containing a grassland parcel and area of hardstanding agricultural yard and access roadway.

This report sets out the results of a Site survey undertaken 15 October 2024 and a subsequent desk-based assessment. The information, assessment and discussion set out in this report aim to inform the potential for Biodiversity Net Gain on the Site in the context of plans to establish a new onsite building and associated infrastructure. Access will be via existing roadways.

1.2 Site description

The Site was an approximately 0.28 ha flat parcel of land north of Newbold Verdon, Leicestershire (see Figure 1). The majority of the Site comprises an existing modified grassland parcel used as a pastoral field, with an area of hardstanding agricultural yard and road way also present.

No hedgerows, lines of trees or watercourses are present within the Site.

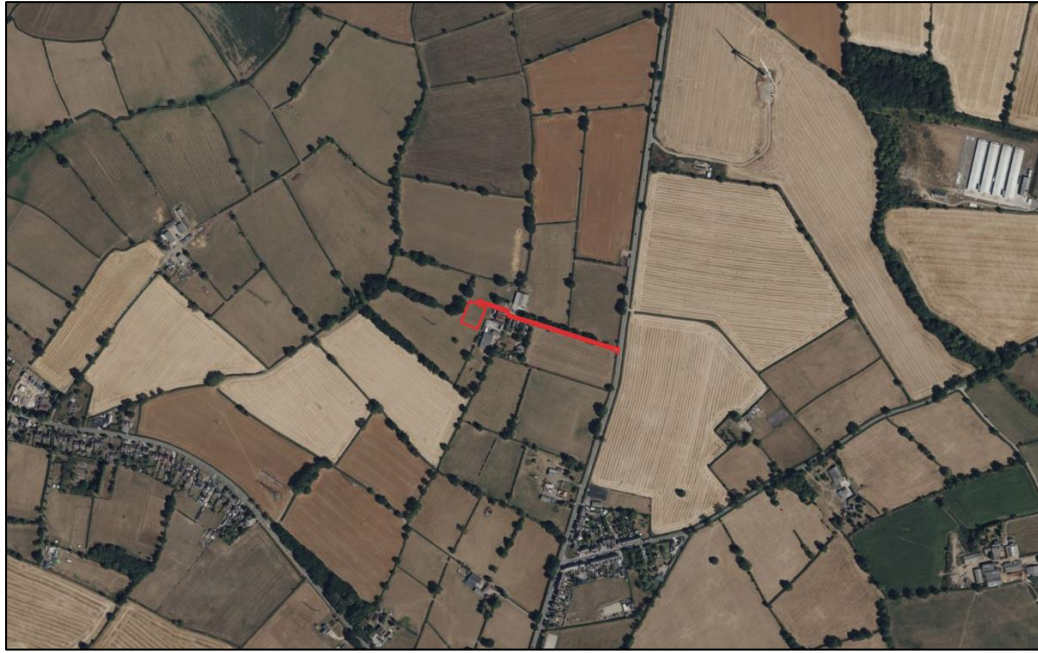


Figure 1 – Site location (redline), showing the wider local landscape (© 2024 Microsoft Corporation, © 2024 Maxar, ©CNES (2024) Distribution Airbus DS).

Imagery taken from Bing November 2024.

The wider landscape around the Site is dominated by agricultural field parcels, chiefly arable. Various hedgerows, woodland blocks and waterbodies are also present in the local vicinity of the Site.

Bagworth Road, a public roadway, is present directly east of the Site. Multiple other public roadways are present within the surrounding landscape, chiefly associated with the urban areas of Newbold Verdon and Barlestone.

No Statutory main Rivers are present within 2 km of the Site.

2. Methods

2.1 Objectives

The aim of this report is to provide an initial assessment of the habitats present within the Site and those included in proposals for the Site with regard to the potential of achieving Biodiversity Net Gain. Plans showing all onsite habitats will be generated.

This report was produced following current best practice guidance, including that set out in BS 8683:2021 Process for designing and implementing Biodiversity Net Gain (British Standards 2021).

2.2 Legislation and Policy

Appendix A sets out the national and local planning policy, as well as environmental and wildlife legislation relevant to the Site. The project must adhere to these documents at all times. The contents of this report are written in part to avoid an offence being committed in regard to this policy and legislation.

2.3 Biodiversity Net Gain Calculation

A survey of the Site was conducted on 15 October 2024 by Senior Ecologist Ryan Clark BSc (Hons) MSc ACIEEM. Ryan is a qualified ecologist, having worked within ecology and the wider environmental sector for the last 14 years.

The survey area was subject to a walkover by the attending ecologist, where in the onsite habitats were identified and assessed in accordance with the UK Habitat Classification Version 2.0 (UKHab Ltd 2023). Flora species lists were compiled for each habitat and assigned positions on the DAFOR (Dominant, Abundant, Frequent, Occasional, or Rare) scale as laid out in Walker *et al.* (2010). Additionally, the Site was assessed for its suitability

for protected and notable species. Any evidence of such species, e.g. Badger setts and signs, was recorded and geo-referenced onsite.

The Statutory Biodiversity metric (Defra 2023) was employed to input the results of the Site survey and the proposed new onsite habitats, thereby generating the value difference between the pre-project and post-project habitats—relative Biodiversity Net Gain (BNG).

The Statutory Biodiversity Metric requires the following site condition data points to generate the BNG associated with the Site and proposed works:

Habitat Type: both the broad habitat, e.g. woodland, and the specific habitat type, e.g. lowland mixed deciduous woodland, as outlined in UKHab Ltd. (2023).

Area: an aerial measurement of total land cover area (in hectares) for each habitat parcel. Recording of habitat extents, both pre and post-works, was conducted using the onsite survey results, readily available online mapping and aerial imagery, and verified land use records. The minimal mapping unit (MMU) was taken at 0.01 ha.

Condition: a measure within Defra's BNG guidance and assessment tools that quantified the relative 'condition' of a habitat parcel based on various physical, composition, and landscape variables dependant on the habitat type, e.g. number of vascular plant species present per square metre. The Statutory Biodiversity Metric Condition Assessment sheets (Defra 2023) were used to assign condition scores to the habitat parcels identified in the onsite survey.

Strategic Significance: a category ascribed to the geographical location of the Site in regard to its position in the context of Local Planning Authority areas and National Character Area profiles.

2.4 Limitations

The survey of the Site was conducted in October 2024, outside of the optimal botanical assessment period and habitat survey season (April-September inclusive). Thus, it is considered there was moderate risk of notable plant species, such as invasive non-natives, habitat characteristic species, and protected species, being missed by this survey. However, onsite habitats were common and widespread in Britain and were not considered to present complex ecological communities, such as flora-rich woodland floors or lowland meadow, that would be misidentified outside of the optimal botanical assessment period. Thus, it is estimated that a full and complete habitat assessment of the Site was conducted.

Habitat mapping is subject to seasonal variations, where in, ecotones—transitional zones between biological communities—may drift or be relocated at different periods of the year. This can be a natural shift owing to abiotic factors, or a consequence of management, either within the habitat itself or within adjacent communities.

3. Baseline Conditions

3.1 UK Habitat Classification Survey

This section outlines all habitats recorded within the Site on 15 October 2024. A plan depicting the onsite habitats, their extent and location, and relevant target notes are shown in Appendix B; photographs of the Site are shown in Appendix C.

UKHab baseline habitats present within the Site:

- Modified grassland – g4 (Secondary code: 100 – grazed).
- Other developed land – u1b6 (Secondary codes: 800 – road and 804 – car park).

3.1.1 Modified Grassland

An existing section of a modified grassland field in the west of the Site (Photograph 1). The sward was dominated by perennial ryegrass (*Lolium perenne*), with occasional annual meadow grass (*Poa annua*), and rare cocksfoot (*Dactylis glomerata*) and crested dogs tail (*Cynosurus cristatus*). Forbs included common dandelion (*Taraxacum* agg.), creeping buttercup (*Ranunculus repens*), and white clover (*Trifolium repens*). Vascular plant diversity was noticeably low and did not exceed four. Thus, this habitat did not pass condition criteria A; therefore, achieving Poor condition.

3.1.2 Other Developed Land

Existing hardstanding agricultural yard and access roadway (Photograph 2). No significant vegetation was present.

4. Feasibility of Biodiversity Net Gain

4.1 Irreplaceable Habitat and Other Important Ecological Features Evaluation

No irreplaceable or Priority habitats are present within the Site. Various hedgerows and freshwater ponds within the local area are considered likely to meet criteria of Priority habitats.

The assessment of the Site did not include an in-depth survey that would have identified suitability and risks in regard to protected and notable species. However, it is estimated that the onsite grassland may provide habitat for some invertebrates that would qualify as Priority Species by the Natural Environment and Rural Communities Act 2006 (as amended). Adjacent trees have potential to support nesting birds. Freshwater ponds within the vicinity of the Site may support great crested newt (*Triturus cristatus*).

4.2 Proposed Habitats

This section outlines all UKHab habitats proposed to be present on the Site post development; as shown in the indicative Site plan (Appendix B).

UKHab habitats proposed to be present after project delivery on the Site:

- Building – u1b5.
- Other developed land – u1b6 (Secondary codes: 800 – road and 804 – car park).

4.2.1 Building

Proposed new onsite building. No green roofs are proposed.

4.2.2 Other Developed Land

Retained yard and access roadway.

Eight new medium sized (>30 cm diameter) trees are proposed to be planted adjacent to a new access roadway. These trees should be native species, including pedunculate oak (*Quercus robur*) and wild cherry (*Prunus avium*), and sourced from local providence where possible. While these trees are plotted on the indicative plan, their location can be adapted to fit in with the proposed scheme without any impact to the Biodiversity Net Gain obligation—trees will remain within the modified grassland habitat. These trees are anticipated to pass condition criteria A, B and F (trees will over sail adjacent—offsite—grassland); therefore, achieving Moderate condition.

4.3 Summary of Habitat Change

Tables 4.1 and 4.2 detail summary changes in UKHab habitats associated with the proposed project prior to and after the proposed development.

Table 4.1 – summary of UKHab habitat change pre-development

Habitat	Total area	Area retained	Area enhanced	Description
Non-linear habitats (ha)				
Modified grassland	0.17	0	0	Existing Poor condition grassland field.
Developed land; sealed surface (other developed land – u1b6)	0.11	0.11	0	Existing hardstanding.

Table 4.2 - summary of non-linear UKHab habitat change post-development

Habitat	Total area	Description
Non-linear habitat creation (ha)		
Developed land; sealed surface (Building – u1b5)	0.04	Proposed new building and trackway.
Individual trees - rural	0.005	Proposed new Moderate condition small trees.

Figure 2 presents an extract from the completed Statutory Biodiversity Metric completed for the Site.

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	0.06
	<i>Hedgerow units</i>	0.00
	<i>Watercourse units</i>	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	17.16%
	<i>Hedgerow units</i>	0.00%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	Yes ✓	

Figure 2 – extract from a completed Statutory Biodiversity Metric for the Site.

The proposed changes of habitats within the Site result in an increase of habitat units from 0.34 to 0.4—equating to a **Biodiversity Net Gain of 17.16%**.

No hedgerow or watercourse units are present within the Site.

5. Conclusion

The proposals for the Site include the establishing of a new building and associated infrastructure.

A baseline dominated by an existing modified grassland field is proposed to be altered by the addition of a new building and access roadway. Eight new medium-sized native trees will be planted under the current proposals.

The onsite habitat change is estimated to result in a habitat unit uplift of 17.16%. Thus, the project is considered to meet the legal obligation to achieve a minimum of 10% Biodiversity Net Gain in England.

References

Methods & Professional Standards

- **British Standards (2012)** *BS 5837: 2012 – Trees in relation to design, demolition and construction*. London, British Standards Institution.
- **British Standards (2020)** *BS 42020: 2013 - Biodiversity Code of Practice for Planning and Development*. London, British Standards Institution.
- **British Standards (2021)** *BS 8683: 2021 - Process for designing and implementing Biodiversity Net Gain*. London, British Standards Institution.
- **CIEEM (2017b)** *Guidelines on Ecological Report Writing* (2nd Edition). Winchester, CIEEM.
- **CIEEM (2018)** *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.1*. Winchester, CIEEM.
- **CIEEM (2019)** *Advice Note: On the Lifespan of Ecological Reports & Surveys*. Winchester, CIEEM.
- **Department for Levelling Up, Housing & Communities (2023)** *National Planning Policy Framework*. London, Department for Levelling Up, Housing & Communities.
- **Defra (Department for Environment, Food & Rural Affairs) (2023)**. *Statutory biodiversity metric tools and guides: tools for measuring the biodiversity value of habitat for biodiversity net gain (BNG)*. Available from: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>.
- **Poland, J. & Clement, E. (2019)** *The Vegetative Key to the British Flora: A new approach to plant identification* (2nd ed.). John Poland.
- **Rose, F. – updated by O'Reilly C. (2006)** *The Wild Flower Key (Revised Edition) - How to identify wild plants, trees and shrubs in Britain and Ireland*. Bristol, Warne.
- **Stance, C.A. (2019)** *New Flora of the British Isles* (4th ed.). Ipswich, C&M Floristics.
- **UKHab Ltd (2023)** *UK Habitat Classification Version 2.0*. Available at: ukhab.org.
- **Walker, K., Pearman, B.E., McIntosh, J. & Lockton, A. (2010)** *BSBI Recording the British and Irish flora 2010-2020. Annex 1: Guidance on sampling approaches*. Cumbria, Botanical Society of Britain and Ireland.

Species and Habitats Best Practice Guidance

- **Badger Trust (2023)** *Badger Protection: Best Practice Guidance for Developers, Ecologists and Planners (England)*.
- **Institute of Lighting Professionals (2023)** *Guidance Note 08/23: Bats and Artificial Lighting at Night*. Rugby, Institute of Lighting Professionals.
- **Department for Levelling Up, Housing & Communities (2016)** *Natural Environment Planning Practice Guidance*. Available at: Gov.uk.
- **English Nature (2001)** *Great crested newt mitigation guidelines*. Peterborough, English Nature.
- **Bright, P., Morris, P. & Mitchell-Jones T.J. (2006)** *The Dormouse Conservation Handbook (2nd Edition)*. Peterborough, English Nature.
- **Langton, T., Beckett, C. & Foster, J. (2001)** *Great Crested Newt Conservation Handbook*. Halesworth, Froglife.
- **Natural England (2020)** *Prepare a planning proposal to avoid harm or disturbance to protected species*. Available at: Gov.uk.
- **Natural England (2022)** *Badgers: Advice for making planning decisions*. Available at: Gov.uk.
- **Natural England (2022)** *Hazel Dormice: Advice for making planning decisions*. Available at: Gov.uk.
- **Natural England (2022)** *Invertebrates: Advice for making planning decisions*. Available at: Gov.uk.
- **Natural England (2022)** *Otter: Advice for making planning decisions*. Available at: Gov.uk.
- **Natural England (2022)** *Protected plants, fungi and lichens: Advice for making planning decisions*. Available at: Gov.uk.
- **Natural England (2022)** *Reptiles: Advice for making planning decisions*. Available at: Gov.uk.
- **Natural England (2022)** *Water Voles: Advice for making planning decisions*. Available at: Gov.uk.
- **Natural England (2022)** *White-clawed crayfish: Advice for making planning decisions*. Available at: Gov.uk.
- **Natural England (2022)** *Wild birds: Advice for making planning decisions*. Available at: Gov.uk.
- **Reason, P.F. & Wray, S. (2023)** *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats*. Ampfield, CIEEM.

Other Literature

- **Department for Environment, Food and Rural Affairs (2014)** *The National Pollinator Strategy: for bees and other pollinators in England*. London, Defra.
- **Department for Environment, Food and Rural Affairs (2023b)** *Environmental Improvement Plan 2023: First revision of the 25 Year Environment Plan*. London, Defra.
- **Department for Environment, Food and Rural Affairs (2023b)** *Complying with the biodiversity duty*. Available at: Gov.uk.

-
- Lawton, J.H., Brotherton, P.N.M., Brown, V.K., Elphick, C., Fitter, A.H., Forshaw, J., Haddow, R.W., Hilborne, S., Leafe, R.N., Mace, G.M., Southgate, M.P., Sutherland, W.J., Tew, T.E., Varley, J., & Wynne, G.R. (2010) *Making Space for Nature: A review of England's Wildlife Sites and Ecological Network*. London, Defra.

APPENDIX A: Planning Policy & Legislation

Relevant Planning Policy

National Planning Policy Framework 2023

The NPPF states that:

Para 8

Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives).

Para 32

Local plans and spatial development strategies should be informed throughout their preparation by a sustainability appraisal that meets the relevant legal requirements¹⁷. This should demonstrate how the plan has addressed relevant economic, social and environmental objectives (including opportunities for net gains).

Para 180

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

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

Para 185

To protect and enhance biodiversity and geodiversity, plans should:

- Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity

Para 186

When determining planning applications, local planning authorities should apply the following principle:

- 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.

Charnwood Local Plan 2021-37 (2021)

Objectives – Environment: Contributing to protecting and enhancing our natural, built and historic environment

3. To protect and enhance the range of habitats and species found in Charnwood, seek to deliver biodiversity gain, reverse habitat fragmentation and encourage the recovery of ecological networks

Policy EV6: Conserving and Enhancing Biodiversity and Geodiversity

We will conserve, restore and enhance our natural environment for its own value and the contribution it makes to our communities and economy and ensure it is resilient to current and future pressures.

We will ensure that biodiversity, ecological networks and geodiversity interests are protected, restored, enhanced and resilient. We will do this by seeking 10% biodiversity net gain and supporting development that:

- protects and enhances national and local priority habitats and species;
- protects and enhances irreplaceable habitats including trees, veteran trees and ancient woodland;
- protects and enhances biodiversity networks, including strategically important links in the wildlife network between our most valuable habitats;
- supports nature recovery particularly in areas which have protected species and priority habitats;
- protects features of geodiversity value and enhances their interpretation;
- ensures biodiversity and geodiversity are maintained during construction; and
- improves the water quality of any water body as required by the Water Framework Directive.

Development proposals should be accompanied by an ecological survey including a Biodiversity Impact Assessment and demonstrate how they have been designed to minimise ecological impact and provide 10% net gain on site in the first instance or through biodiversity offsetting, where appropriate.

- Where exceptional circumstances are demonstrated, we will require adequate mitigation measures, relocation or as a last resort compensatory measures providing a 10% net gain in biodiversity value above the habitat lost.

Main Environmental and wildlife Legislation (England)

Environment Act 2021

Schedule 14 of The Environment Act 2021 makes it mandatory for all new developments (with some limited exceptions) to achieve a biodiversity net gain (BNG) of at least 10% by the time the development is completed compared to the pre-development biodiversity value of the onsite habitat.

The outputs and statutory instruments of this legislation may be amended in the future by the Secretary of State.

Conservation of Habitats and Species regulations 2017 (as amended).

Section 43 of Part 3 of this legislation makes it an offence to do any of the following with regards to European Protected Species (animals) as listed on Schedule 2:

- Deliberately capture, injure or kill any wild animal of a European protected species.
- Deliberately disturb wild animals of any such species.
- Deliberately takes or destroy the eggs of such an animal.
- Damage or destroy a breeding site or resting place of such an animal. (*Note: no intentionality is necessary to prosecute this activity*).

Section 43 of Part 3 of this legislation makes it an offence to do any of the following with regards to European Protected Species (plants) as listed on Schedule 5:

- Deliberately pick, collect, cut, uproot or destroy a wild plant of a European Protected Species.
 - Be in position of or to transport said plant.
-

Natural Environment and Rural Communities Act (as amended).

Section 40 of Part 3 of this act compels public bodies (local authorities, police, fire and health authorities, and utility companies) with exercisable functions within England to consider actions to be taken to conserve and enhance biodiversity in England—in particular to have regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992, any relevant local nature recovery strategies, and any relevant species conservation strategy or protected site strategy (prepared by Natural England).

Section 41 of Part 3 of this Act ensures the publishing of a list containing species and habitat types that are of principle importance for the purpose of conserving or enhancing biodiversity in England.

Wild Mammals (Protection) Act 1996.

Under this legislation it is an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with the intent to inflict unnecessary suffering.

Protection of Badgers Act 1992

Under this legislation it is an offence to (or intend to, or to be reckless as to whether your actions would have these consequences):

- Wilfully kill, injure or take a badger (or attempts to do so).
- Damage or destroy any part of a badger sett. (Note: no intentionality is necessary to prosecute these activities).
- Obstruct access to a badger sett. (Note: no intentionality is necessary to prosecute these activities).
- Disturb a badger when it is occupying a sett. (Note: no intentionality is necessary to prosecute these activities).

Wildlife and Countryside Act 1981 (as amended).

Part 1 of this act makes it an offence to intentionally or recklessly kill, injure or take any wild bird, to take, damage or destroy the nest of any wild bird while that nest is in use or being built, and/or to take or destroy an egg of any wild bird.

Part 1 also makes it an offence to intentionally or recklessly disturb any wild bird included in Schedule 1 of the act, and to take, damage, or destroy the nest of any wild bird included in Schedule ZA1.

Schedule 5 lists non-avian species that are afforded various protections under Sections 9.1a, 9.1b, 9.2, 9.4a, 9.4b (Whales), 9.4c, 9.5a and 9.5b.

Schedule 8 lists plant species that are protected from intentionally picking, uprooting or destroying under Section 13.

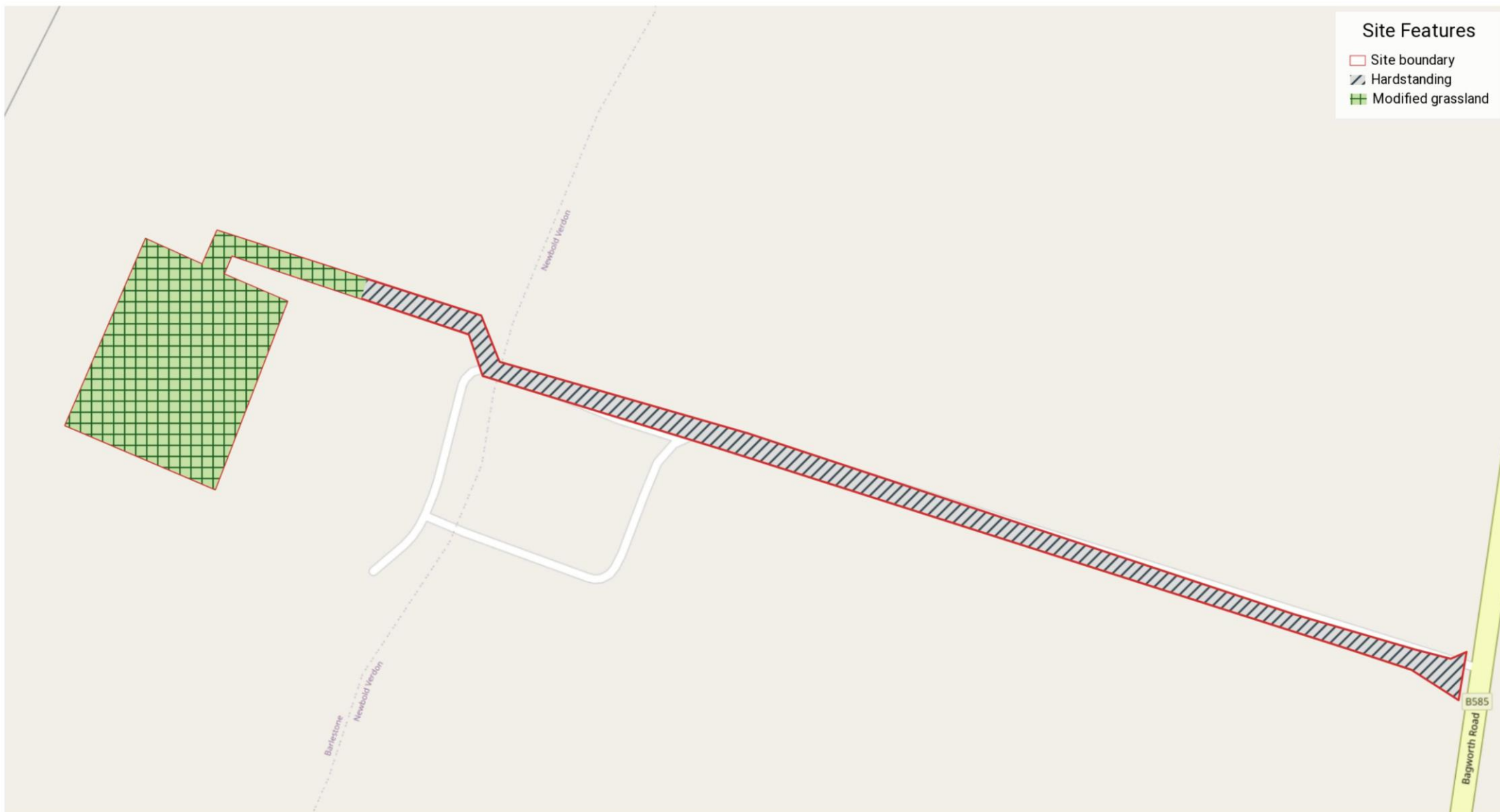
Schedule 9 lists non-native invasive plants for which it is an offence under Section 14 to plant or otherwise cause to grow in the wild any part of said plants. (Note: no intentionality is necessary to prosecute these activities).

Other Legislation (England)

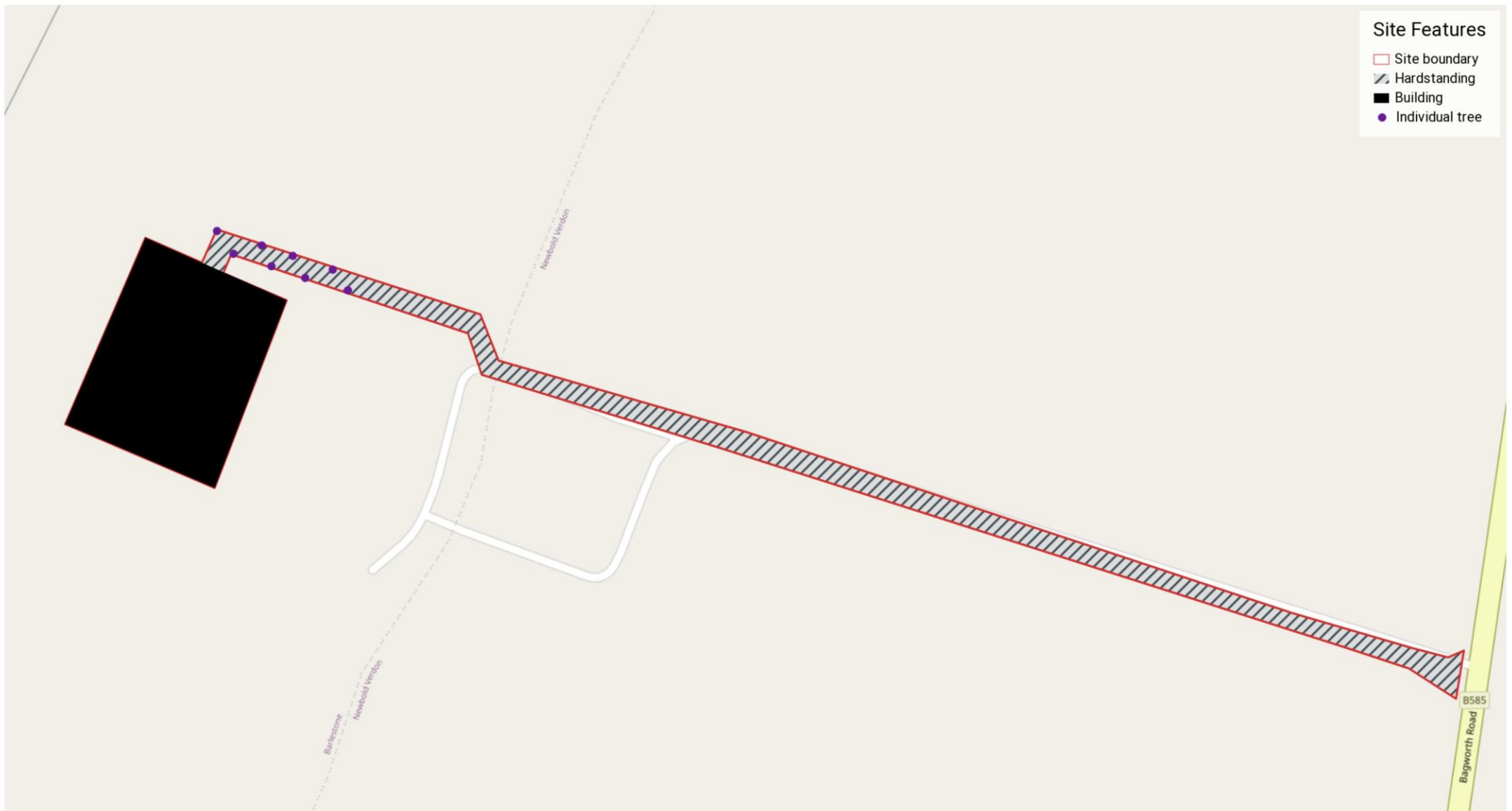
- The Environmental Impact Assessment (EIA) Regulations 2017
- Anti-social Behaviour Act 2003 (as amended).
- Countryside and Rights of Way Act 2000
- Hedgerows Regulations 1997.
- Weeds Act 1959.

APPENDIX B: Baseline Habitat Plan & Proposed Habitats Plan

See overleaf.



Proposed Habitats



APPENDIX C: Photographs



Photograph 1: modified grassland in the west of the Site.



Photograph 2: hardstanding roadway in the east of the Site.