

Biodiversity Net Gain (BNG) Feasibility Assessment

Land South of Albrighton

December 2024

For and on behalf of
Boningale Homes Limited



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Disclaimer

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This document does not constitute legal advice.

0.0 SUMMARY

- 0.1 Beamsley Ecology Ltd was commissioned to conduct a Biodiversity Net Gain (BNG) Feasibility Assessment for a proposed mixed-use development on Land South of Albrighton, Shropshire.

Baseline Conditions

- 0.2 The Site is primarily arable land with hedgerows, ponds, ditch and areas of woodland. An assessment of the biodiversity value of these habitats has been carried out according to DEFRA and Natural England methodologies. The Site has a baseline value of 111.13 area Biodiversity Units (BUs), 66.05 linear BUs, and 0.93 watercourse BUs.

Post-Development Habitat Value

- 0.3 The assessment applies a precautionary approach to the current indicative landscape design to gauge feasibility of the Project complying with a mandatory 10% net gain in biodiversity, as required by the Environment Act 2021.
- 0.4 The design process has aimed to minimise losses of habitats of significant value including woodland, ponds, and hedgerow.

Summary Results

- 0.5 **On-Site:** Expected to yield a net loss of 45.08 area Biodiversity Units (BUs), representing a 40.46% decrease in current habitat value. There is significant potential to increase the post development BU value at the point of detailed design.
- 0.6 Currently a -4.49 BUs (-5.90%) loss in linear BUs is predicted. This is considered a minor loss in the context of the proposals, and 10% BNG is likely to be achievable within the Site through enhancement of existing hedgerow, or creation of new native hedgerow.
- 0.7 A single ditch is mapped within the Site. A full assessment of BNG in watercourses will be carried out at the point of detailed design.
- 0.8 **Off-Site:** An outline scheme of arable conversion to grassland and mixed scrub habitat on land immediately to the east is provisionally assessed as having the potential to yield 67.01 area BUs.
- 0.9 **Project BNG Feasibility:** Incorporating off-site habitat creation, the Project is considered capable of delivering over and above the statutory 10% BNG target, potentially achieving a net gain of approximately 21.93 area BUs (19.74%). Hedgerow losses are relatively minor, and 10% BNG in linear BUs is feasible through a scheme of hedgerow creation and enhancement within on-site and off-site areas.

Next Steps

- 0.10 A Biodiversity Gain Plan will be submitted to discharge the statutory BNG condition applied to any granted permission, which will be supported by a detailed BNG Assessment a 30-year Habitat Management and Monitoring Plan (HMMP).
- 0.11 Detailed design should aim to maximise the biodiversity value of the development.

1.0 INTRODUCTION

- 1.1 Beamsley Ecology Ltd was commissioned by Boningale Homes Limited (the Client) to produce a Biodiversity Net Gain (BNG) Feasibility Assessment relating to land south of Albrighton, Shropshire (hereafter referred to as the 'Site').
- 1.2 The work has been commissioned to inform an outline planning application for proposals to develop the Site for mixed use.

Site Description

- 1.3 The Site is located immediately to the south of the town of Albrighton (Centred on Ordnance Survey Grid Reference SJ 80814 03343). It comprises predominantly arable fields, with dividing hedgerows, scattered mature trees, scattered ponds and three small areas of woodland. The Site is bisected by two minor roads, and the southern boundary is immediately adjacent to the major highway (A41). The immediate surrounding area to the south, west and east comprises mixed use agricultural land, intersected by a network of hedgerows.
- 1.4 The assessment incorporates an off-site 'blue line' area (See Figure 1) which is available to the Client for habitat creation. This indicative area is incorporated to demonstrate the feasibility of the project achieving BNG at the 10% (minimum) level as mandated through the Environment Act (2021).
- 1.5 The Site boundary and off-site locations are shown in Figure 1. The on-site and off-site boundary areas are referred to collectively as the 'Project'.

Proposals

- 1.6 An outline application has been submitted including access for a mixed-use development comprising up to 800 dwellings, a care home of up to 80 units, a secondary school and local centre with associated access, infrastructure, landscaping and drainage (the 'Proposals'). All matters are reserved save for access.

Aims & Objectives

- 1.7 This report will estimate the anticipated losses or gains in biodiversity units (BUs) as a result of the Proposals and outline the assumptions that have been made to inform the calculations. The calculations are based on the indicative Landscape Masterplan (Ref: 24_02108_OUT-LVIA) which can be found in **Appendix 1**. The proposed habitats were translated into UKHab Classification Habitat Types (**Figure 3**).
- 1.8 As detailed within industry guidance¹, a BNG design stage report should be used to identify the BNG predicted to be achieved for a proposed development, based on the scheme design to be submitted with planning documents which accompany a planning application.
- 1.9 The report aims to -
 - Provide an indicative assessment of the BNG score for the Project,
 - Demonstrate an illustrative strategy for the project to achieve 10% Biodiversity Net Gain,

¹ CIEEM (2021). Biodiversity Net Gain Report and Audit Templates Chartered Institute of Ecology and Environmental Management, Winchester, UK

- Assess the Project against BNG best practice guidelines².

Legislation & Policy

- 1.10 Under the Environment Act (2021), planning permissions granted in England, with a few exemptions, must deliver at least 10% biodiversity net gain, using the DEFRA biodiversity metric and associated methodologies to demonstrate this.
- 1.11 National policy sets out that planning should provide biodiversity net gains where possible. National Planning Policy Framework (NPPF) Paragraphs 170(d), 174(b) and 175(d) refer to this policy requirement and the Natural Environment Planning Practice Guidance (PPG) provides further explanation on how this should be done.
- 1.12 Local policy does not explicitly reference Biodiversity Net Gain. However, consideration is given the Shropshire Biodiversity Action Plan (SBAP) which provides a detailed outline of the work necessary for the conservation of 34 species and 15 habitats, particularly when determining the strategic significance of the baseline and post-development habitat types.

2.0 METHODOLOGY

- 2.1 The Biodiversity Net Gain (BNG) assessment provides a prediction of the Site's Biodiversity Net Gain score using the Department for Environment, Food and Rural Affairs (DEFRA) Statutory Metric (the 'Metric') and associated methodologies. The assessment calculates the baseline value according to habitat data collected as part of the habitat survey and compares this to the predicted post development habitat types and conditions according to the most developed landscape design.
- 2.2 **Appendix 2** Provides a summary of the key factors of the methodology which are considered in the BNG assessment.

Habitat Survey

- 2.3 The type and condition of on-site habitats was determined through habitat survey carried out on the 24th, 25th and 26th February, and 26th of April 2024 and followed the principles of Extended Phase 1 Habitat Survey methodology (JNCC, 2010). Habitats were classified according to the UK Habitat Classification System (UKHab Ltd, 2023), with secondary codes used where appropriate.
- 2.4 The survey was carried out by Alasdair Grubb BSc (Hons) ACIEEM. Alasdair has over 10 years of experience carrying out habitat surveys and holds a level 5 Botanical Society for Britain and Ireland (BSBI) Field Identification Skills Certificate (FISC), which certifies him as competent to undertake botanical and habitats surveys up to national vegetation classification (NVC) survey level.

Key Criteria

- 2.5 The below table summarises the assessments made with regards to the key factors highlighted in Appendix 2, separating on-site and off-site habitats.

² CIEEM, CIRIA, IEMA, 2016, Biodiversity Net Gain: Good practice principles for development.

Table 1: *Summary of Assessment of Key Criteria in BNG Methodology (On-Site)*

Factor	Baseline	Creation
Habitat Type	The extent of the Site was mapped, and habitat types were recorded and mapped using UKHab Classification as part of the Field Survey in Spring 2024.	Habitat types are provided on the Proposed Habitat Features Plans. These UKHab categories were assigned based on the landscaping plans, and in some cases represent a 'best fit'. The feasibility of creation for certain habitat types / conditions is taken into account. This is discussed in later sections.
Area	Habitats were separated into parcels either where they were geographically discrete or where there was a change in habitat condition across a single location. Each parcel was recorded and calculated separately within the Metric. Areas were calculated in hectares to three decimal places using digital mapping using QGIS. QGIS is a geographic information system (GIS) software.	
Distinctiveness	The distinctiveness of a habitat is automatically generated by the metric.	
Condition	A condition assessment was carried out alongside the habitat survey, whereby each habitat parcel was assessed for its condition according to Natural England criteria. Details of the condition assessments are provided in the Preliminary Ecological Appraisal.	A condition assessment was carried out on the proposed habitats as shown within the Landscape Masterplan. Professional judgement of an ecologist was applied. In the absence of detailed landscape design, or habitat creation / monitoring detail, the assessment based on a 'worst case scenario' as per guidance.
Strategic Significance	Currently no habitats on the baseline or post development are considered strategically significant, and as such are assigned the lowest level of strategic significance. No Local Nature Recovery Strategy (LNRS) has been produced for Shropshire Council, on which decisions on the higher strategic significance band would be based. The assessment of strategic significance is likely to be refined in future iterations of the BNG assessment, following consultation with the Local Planning Authority, and in the event the LNRS is published.	
Time to target condition	N/A	Time to target condition is pre-determined by the Defra methodology according to the habitat type
Difficulty of creation	N/A	Difficulty of creation is pre-determined by the Defra methodology according to the habitat type
Delays in creation	N/A	There is currently no reason to assume that there will be a

/ enhancement of habitats		delay in the creation of on-site or off-site habitats which contribute to the BNG assessment. Any delays as a result of phasing of the project or otherwise will be taken into account in future detailed BNG assessments to support reserved matters applications.
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3.0 LIMITATIONS & ASSUMPTIONS

- 3.1 The areas and conditions of post-development habitats are based solely on indicative landscaping plans, with the expectation that full details will be provided as a pre-commencement planning condition. The Biodiversity Net Gain (BNG) scores outlined here will change at the point of detailed design, and if adjustments are made to the redline planning application boundary, the proposed development layout and massing, or the extent and character of retained, created, and enhanced post-development habitats. Even minor changes to these elements could significantly affect the overall BNG outcome.
- 3.2 For some habitat classifications, especially urban habitats, the post-development habitats represent a “best fit” within the Metric's categories.
- 3.3 Currently ‘individual trees’ have not been incorporated into the post development assessment as no schedule of tree planting is available. Individual trees will be incorporated in the BNG assessment at the point of reserved matters applications.
- 3.4 Given there are no details on the methodology of creation and management of the post development habitats are provided in the landscape submission, the assessment applies a precautionary ‘worst case’ approach to classification of post development habitat types and conditions.
- 3.5 The off-site ‘blue line’ area is shown indicatively to demonstrate the feasibility of achieving 10% BNG within land in the Client’s control. The off-site area may be subject to change in terms of location or habitats proposed at the point of reserved matters applications and detailed BNG assessment for the Project.
- 3.6 This report does not specify the complete methodology for BNG assessment; relevant guidance documents should be consulted as needed.

4.0 BASELINE CONDITIONS

On-Site

- 4.1 Habitats found on-site are shown on **Figure 2**. The Site is dominated by arable fields with a network of hedgerows. Small areas of grasslands, hedgerows, ponds, and woodlands are located across the site, predominantly on the periphery. Two grassland areas, characterized by a diverse structure and typical grass and forb species, were found to be in moderate condition. The western Site section includes large arable fields with field margins supporting a variety of grasses and herbaceous species, while the eastern section has fields left in winter stubble from previous crops.
- 4.2 A single ditch is assessed as likely to hold water for more than 4 months of the year, and as such is mapped as a 'watercourse'.
- 4.3 Full descriptions of habitat types and details of condition assessments are provided in the PEA.

Off-site

- 4.4 The off-site area comprises entirely of arable fields. Boundary features such as hedgerows are not currently assessed.

5.0 POST DEVELOPMENT HABITATS

On-Site

- 5.1 As described above, given the lack of detailed landscape design available at the outline stage a precautionary approach has been applied when converting the proposed habitats shown in the proposed landscape plan to UKHab classification habitats. **Figure 3** shows the current assessment of the post development habitats and provides an explanation for the classifications.
- 5.2 The current proposals have sought to retain those habitats in increased biodiversity value including woodland and ponds. Hedgerow loss is currently anticipated only where access roads are proposed.

Off-site

- 5.3 The assessment of the off-site contribution provided by the area shown in **Figure 1** assumes the conversion of the existing arable into a 50/50 split of grassland and mixed scrub. This provides an illustrative assessment of the potential biodiversity value which this area could contribute towards the Project BNG score.
- 5.4 Habitat types and conditions are considered reasonable targets based on the baseline habitats present.

6.0 BIODIVERSITY NET GAIN RESULTS

- 6.1 The full results of the BNG assessment are provided in the Statutory Metric (BE0010-XLS-01.1 Albrighton BNG) as a separate document.
- 6.2 A summary of the results is provided in the table below.

Table 2: *Biodiversity Net Gain Results Summary*

	On-site			Off-site			
	Baseline Value	Post-development Value	Predicted On-Site BNG	Baseline Value	Post-intervention Value	Off Site BU Contribution / yield	Project BNG
Area Habitats	111.12	66.05	-45.08 BUs (-40.46%)	28.55	95.55	67.01	21.93 (19.73%)
Linear Features	76.19	71.69	-4.49 BUs (-5.90%)	See discussion below.			
Watercourses	0.93	0.93	0	See discussion below.			

Trading Rules

- 6.3 Based on the indicative strategy presented herein the Project will satisfy the trading rules of areas BUs. Habitats of medium or higher distinctiveness will be, in the most part, retained. Most of the losses on Site are therefore attributable to losses of arable land, which is of low distinctiveness.
- 6.4 Some loss of high distinctiveness hedgerow is proposed to facilitate the development. To satisfy the trading rules BUs to be generated post development from the enhancement or creation of the same habitat types (Species rich native hedgerow with trees, Native hedgerow with tree – associated with a bank or ditch).
- 6.5 For watercourse BUs the trading rules will be satisfied provided the existing ditch is retained and protected from impacts of development.

7.0 DISCUSSION & RECOMMENDATIONS

- 7.1 The Biodiversity Net Gain assessment has determined the Project is capable of achieving the minimum 10% in Biodiversity Net Gain (BNG) which is mandated by the Environment Act (2021).
- 7.2 The baseline value of the Site is almost entirely as a result of the large area of low distinctiveness habitat, in the form of arable fields. The Proposals represent an opportunity to significantly enhance the biodiversity value of the local area, according to the Statutory BNG methodology, whilst also increasing ecological connectivity and faunal value via a scheme of large-scale habitat creation, enhancement, management and monitoring.

On Site

- 7.3 Based on a worst-case scenario applied to the habitat type and condition of post development habitat shown in the landscape masterplan, the development would result in a net loss of -45.08 BUs (-40.46%).
- 7.4 The assessment currently applies a precautionary approach whereby worst-case distinctiveness and conditions have been applied to the habitats created within the Site. Although in the absence of detailed landscape design and details of habitats management and monitoring this is considered a reasonable approach, in reality the habitat created on Site is likely to deliver significantly higher biodiversity value. The landscape proposals developed at reserved matters stage should be designed to maximise the biodiversity of the Site, whilst also considering potential conflicts in use of green space located within a residential development.

Off-site

- 7.5 The off-site areas incorporated into the assessment are currently assessed as being completely converted from arable land to 'Other Neutral Grassland' and 'Mixed Scrub' in moderate condition. These are habitats of 'Medium' distinctiveness. This scenario is provided to illustrate the feasibility of achieving a 10% net gain position for the project, however in reality the off-site areas, where required, should be designed in a way which maximises the diversity of habitats delivered. The design should aim to provide a value over and above that which is quantifiable through BNG, with a holistic design process aiming consider more than just maximising the BNG score.

Project BNG

- 7.6 Incorporating the off-site areas into the BNG assessment, the Project is anticipated to achieve a net gain of 21.93 BUs (19.74%) in area BUs.
- 7.7 An assessment of Project linear / watercourse BNG is not currently provided. However, through design of the outline layout and subsequent minimisation of hedgerow loss the on-site proposals will be able to minimise losses. There is significant scope to incorporate hedgerow enhancement / creation into the on-site or off-site design, and as such BNG in linear BUs is considered achievable.
- 7.8 Based on the baseline linear BU value of the Site, the Project would be required to deliver an additional 12.11 linear BUs to achieve 10%. Given that the Site offers significant potential for the creation of hedgerow within public open space it is likely that this deficit will reduce at the point of detailed landscape design. Additionally, the off-site area presents significant opportunities to create new hedgerow which will be separated from the potential pressures associated with residential development.
- 7.9 Given that this assessment is submitted alongside an outline planning application with all matters reserved

(except access), there is a high degree of flexibility and therefore uncertainty as to the final developed form. This is reflected in the methodology and results of this assessment. There is significant scope to maximise the biodiversity of on-Site habitats as part of the detailed design.

Species Specific Mitigation

- 7.10 The future detailed design of the on-site and off-site habitats should take into account and species-specific mitigation requirements highlighted following future protected species survey. The overall scheme should aim to provide value over and above that which can be quantified by the BNG methodology and include enhancements for a wide range of fauna including bats, birds, invertebrates, and amphibians.

Biodiversity Gain Plan (BGP)

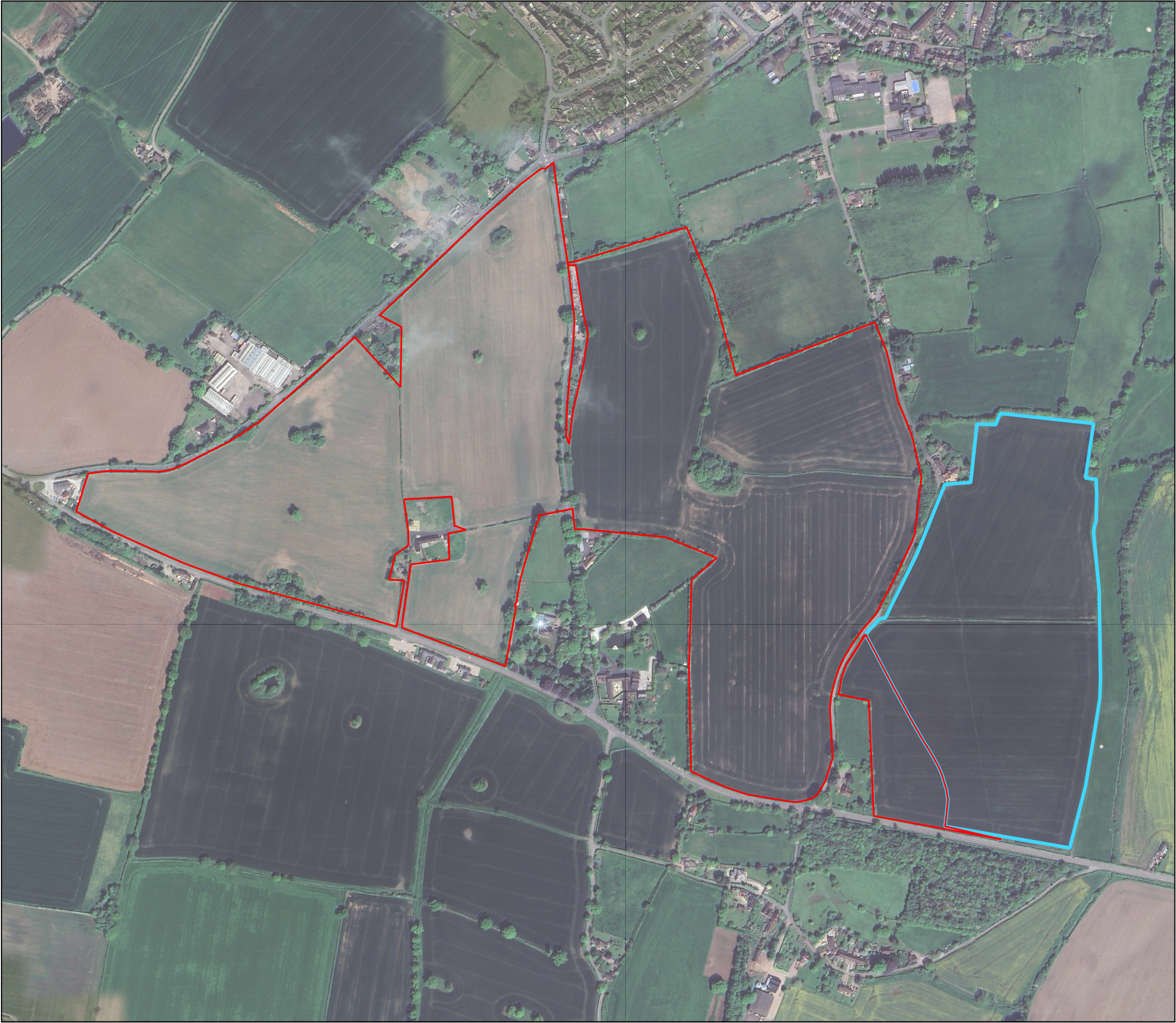
- 7.11 A Biodiversity Gain Plan will need to be submitted to discharge the Statutory BNG Condition applied to any granted planning permission. This will present an updated BNG assessment based on detailed layout and landscape design, along with a Habitat Management and Monitoring Plan covering a minimum 30-year period.
- 7.12 There will be a legal requirement to manage and newly created or enhanced habitat which contributes significantly to the BNG Project score for a minimum of 30-years.

The Mitigation Hierarchy

- 7.13 The Project should aim to satisfy the mitigation hierarchy by minimising the on-site biodiversity losses, and prioritising maximising the biodiversity value of on-site areas through the layout and landscape design. Where a loss is still anticipated following detailed design, the Project should prioritise the creation or enhancement of habitats local to the site of biodiversity loss.

FIGURES

Figure 1: *Site Location*



Red Line (On-site)
Off-Site (Provisional)

BASE MAPS
Google



0 100 200 m

Project	Land South of Albrighton
Figure Name	Figure 1
Version	Version 1

Figure 2: *Baseline Habitat Features*