



Land at Windrush, High Road, Ashton Keynes,
SN6 6NX

Biodiversity Net Gain Design Stage Report



December 2025

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Document Control

Site: Land at Windrush, High Road, Ashton Keynes, SN6 6NX

Title: Biodiversity Net Gain Preliminary Design Stage Report

For: Partridge Homes (Cotswolds) Ltd

Project Number: 25128

Document Version: 1.0

Document Date: 4th December 2025

Version	Date	Version Details	Prepared by	Reviewed by	Approved by
1.0	04/12/2025	-	JR	JG	JG



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Notice to Readers:

The results of the survey and assessment work undertaken by All Ecology are representative at the time of surveying.

Every endeavour has been made to identify the presence of protected species on site, where this falls within the agreed scope of works.

The flora and fauna detailed within this report are those noted during the field survey and from anecdotal evidence. It should not be viewed as a complete list of flora and fauna species that may frequent or exist on site at other times of the year.

Up to date standard methodologies have been used, which are accepted by Natural England and other statutory conservation bodies. No responsibility will be accepted where these methodologies fail to identify all species on-site.

All Ecology cannot take responsibility where Government, national bodies or industry subsequently modify standards.

All Ecology cannot accept responsibility for data collected from third parties.

Reference to sections or particular paragraphs of this document taken out of context may lead to misrepresentation.

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1.0 Introduction

Background

- 1.1 In December 2025, All Ecology Ltd was commissioned to produce a Biodiversity Net Gain Preliminary Design Stage Report of a site known as Land at Windrush, High Road, Ashton Keynes, SN6 6NX. The majority of the application site is hardstanding and buildings, with grassland, area of scrub, areas of ruderal/ephemeral and individual trees. The local area consists mostly of arable fields, small pockets of woodland and residential areas.
- 1.2 The proposals for the site are for a new housing development, including eight new properties, with associated gardens, parking, access, an attenuation basin and open green spaces along the north east and south areas of the site.
- 1.3 The proposals for the site are to erect two new dwellings with associated gardens, access and driveways. This will involve removing the majority of the existing habitats, including the buildings, grassland, tall ruderal, area of scrub and the individual trees.
- 1.4 The Biodiversity Metric Calculation Tool is used to calculate the biodiversity value of a site before and after development and then calculates if the development is likely to cause a loss or gain to biodiversity. It will also calculate the amount of compensation the site may need in the form of Biodiversity Offsetting.

Site Location

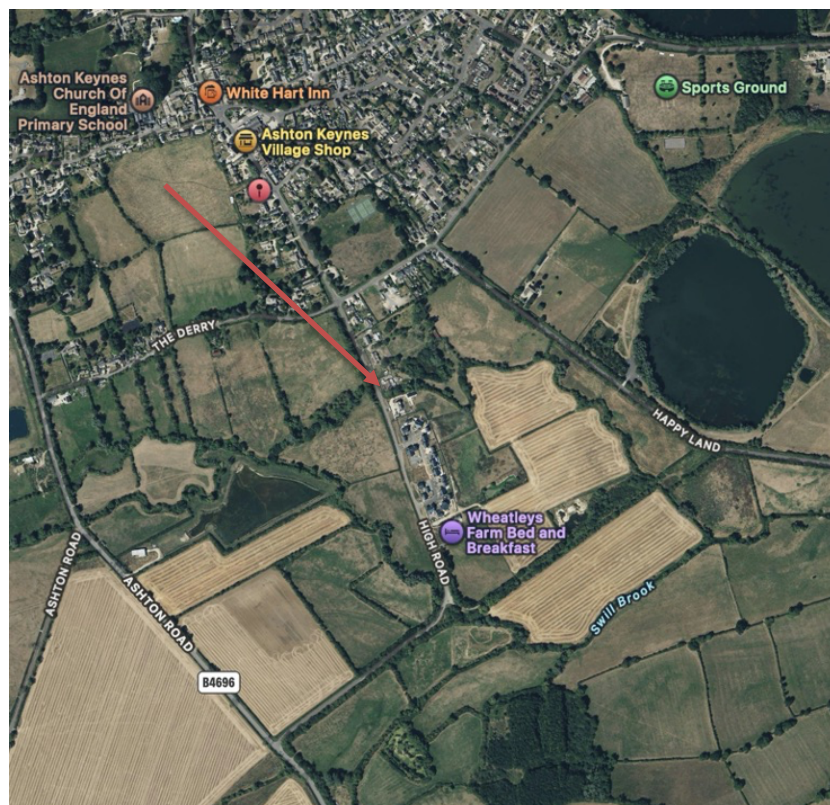


Figure 1: Site location plan.



Figure 2: Aerial view of the site.

2.0 Methodology

- 2.1 The Biodiversity Impact Assessment Calculator was provided by Defra. The Statutory Biodiversity Metric, published in November 2023, provides developers, planners, land managers and others with a robust but simple tool to account for the value of nature and better understand how development and land management change will impact on its value over time.
- 2.2 The DEFRA Metric uses UKHab habitat definitions translated from JNCC Phase 1 habitat definitions where required, and the Natural England Hedgerow Impact Assessment Guide to calculate the overall scores for habitats and linear features on site and determine net gain/net loss. The User Guide to Defra's Statutory Biodiversity Metric and the supporting Technical Supplements were followed for accurate data entry into the calculator.
- 2.3 The habitats and linear features were originally identified on site during a Preliminary Ecological Appraisal of the site, and a River Condition Assessment (RCA) carried out by a fully qualified RCA surveyor. The PEA included full habitat descriptions and photographs. Areas and lengths of the current habitats and linear features were determined using Google Earth and topographical surveys. The proposed site plans were used and measured to determine retained and new habitats for the site and to look for opportunities for enhancement.

3.0 Mitigation Hierarchy

3.1 In line with the Defra Biodiversity Net Gain (BNG) principles, the CIEEM guidance on ecological impact assessment, and the National Planning Policy Framework, the proposed development will follow the mitigation hierarchy to ensure biodiversity is protected and enhanced. This sequential approach requires that impacts are first avoided, then minimised, before seeking restoration and enhancement on-site, with off-site compensation only considered as a last resort. By applying this process at each stage of design, construction, and operation, the scheme ensures that biodiversity considerations are fully embedded and that a measurable net gain will be achieved.

3.2 The application of the mitigation hierarchy to the proposed scheme is set out below:

3.3 Avoid

- Retain habitats of highest ecological value (e.g. priority habitats, mature trees, hedgerows).
- Integrate ecological constraints at the masterplanning stage to prevent avoidable habitat losses.
- Protect retained habitats during construction through buffer zones, exclusion fencing, and careful site layout.

3.4 Minimise

- Implement best practice construction methods, including pollution prevention, soil handling protocols, and dust suppression.
- Time works to avoid sensitive periods for breeding birds, hibernating amphibians, or other protected species.
- Employ ecological supervision where required to safeguard fauna during high-risk activities.
- Design and position lighting to minimise disturbance to bats, invertebrates, and other nocturnal species.

3.5 Restore and Enhance

- Improve the condition of retained habitats through active management (e.g. wildflower seeding, native woodland underplanting, enhancement of grassland structure).
- Create new habitats within the site such as ponds, hedgerows, species-rich grasslands, and native planting to diversify ecological niches.
- Apply long-term management to ensure these habitats mature successfully and continue to provide measurable biodiversity value.

3.6 Compensate (Off-site)

- Where residual impacts remain, secure delivery of biodiversity units through off-site habitat creation or enhancement.
- Establish legally binding agreements (e.g. conservation covenants or planning obligations) to guarantee the delivery of habitat improvements.
- Ensure management and monitoring of off-site habitats is secured for at least 30 years, in line with statutory BNG requirements.

3.7 This approach provides a clear and auditable pathway to achieving at least 10% biodiversity net gain, while ensuring compliance with emerging statutory requirements and demonstrating a commitment to delivering positive outcomes for nature. In this instance, the feature of highest ecological value, the watercourse, will be retained in its entirety and no overall changes to encroachment of the riparian zone, but it would not be possible to achieve a gain. Off-site provision will be required to achieve a gain due to the overall reduction in habitat. Any revisions to the scheme will not deliver the need of the development and would make the scheme unviable.

4.0 Results

Habitats to be retained, enhanced, created or lost

- 4.1 The proposed erection of a new residential development, comprising two new properties with an associated driveway and gardens which will require the removal of the majority of existing on-site habitats. This includes approximately 0.0196 ha of other neutral grassland, 0.0247 ha of modified grassland, 0.0034 ha of bramble scrub, 0.0262 ha of tall ruderal, 0.045 ha of existing buildings, 0.0504 ha of developed land; sealed surface and 3 small trees.
- 4.2 In place of the lost habitats, the new development will include approximately 0.0312 ha of developed land; sealed surface for the creation of the new houses, 0.0189 ha of artificial unvegetated, unsealed surface for the creation of the gravel driveway and 0.1192 ha of vegetated garden.

Hedgerows to be retained, enhanced, created or lost

- 4.3 The existing boundary vegetation will be retained. This includes 0.015 km of native hedgerow with trees – associated with bank or ditch on the south boundary.

Watercourses to be retained, enhanced, created or lost

- 4.4 The River Thames is a watercourse located to the south of the site. The site falls within the 10 m riparian zone of 0.46 km of the watercourse. This water course currently has major encroachment on it's close (north) side from the existing building and hard standing (>25% of the total riparian zone), and no encroachment on the south side. The proposed development will introduce vegetated garden increasing the encroachment from minor to major (encroachment occupies greater than 25% of the total riparian zone area 4 to 10 metres from the bank top).

Biodiversity Net Gain – Habitats

- 4.5 The site development, based on current and proposed habitat conditions, distinctiveness and areas, would result in a net unit change of -0.37 units; this is a net percentage change of -38.19%.

Table 1: Habitat biodiversity net gain results (further detail in Appendix 1)

	Habitat Biodiversity Value
Baseline Units	0.37
Post-intervention Units	0.23
Net Unit Change	-0.14
Net Percentage Change	-38.19%

Biodiversity Net Gain – Hedgerows

- 4.6 The site development, based on current and proposed hedgerow conditions, distinctiveness and lengths, would result in a net unit change of 0.00 units; this is a net percentage change of 0.00%.

Table 2: Hedgerow biodiversity net gain results (further detail in Appendix 1)

	Hedgerow Biodiversity Value
Baseline Units	0.70
Post-intervention Units	0.70
Net Unit Change	0.00
Net Percentage Change	+0.00%

Biodiversity Net Gain – Watercourses

- 4.7 The site development, based on current and proposed encroachment of the riparian zone, would result in a net unit change of 0.00 units; this is a net percentage change of 0.00%.

Table 3: Watercourses biodiversity net gain results (further detail in Appendix 1)

	Habitat Biodiversity Value
Baseline Units	0.55
Post-intervention Units	0.55
Net Unit Change	0.00
Net Percentage Change	0.00%

5.0 Conclusion

Biodiversity Offsetting

- 5.1 The proposed development and proposed landscape will result in a habitat net percentage change of -38.19% and a hedgerow net percentage change of 0.00%. This is a deficit of 0.18 habitat units and 0.07 hedgerow units to achieve a 10% gain.
- 5.2 The proposed development and proposed landscape plan will result in a watercourse net percentage change of 0.00%. This is a deficit of 0.06 watercourse units to meet the required target of 10% gain.
- 5.3 As a loss/insufficient gain for habitats has been demonstrated, Biodiversity Offsetting will be required for habitats.
- 5.4 The developer would either need to find additional land to use for off-site offsetting or use an offsetting provider, who would use the results of the metric to understand how many units and habitats required to offset the net loss on site. In order to buy off-site units, the gain site must create and enhance habitat to meet the needs of the specific BNG requirements from the metric results or a site that has already started creating and enhancing habitat that meets the specific BNG requirements. The developer can buy off-site biodiversity units from:
- Directly from a landowner
 - From a habitat bank operator
 - Through a broker
 - From a Trading platform
 - From the LPA (If they provide this service)
- 5.5 Additional off-site land used by the developer or provided by an offsetting provider will need to be registered on the national biodiversity gain sites register before, or at the same time as, or after units are bought. A legal agreement will be required to secure a site for BNG and set out who will undertake the BNG creation, enhancement and management for 30 years. This applies to habitats on-site used for BNG which provide significant net gains on site and also off-site offsetting. Developers can choose off-site habitats which are already legally secured and registered, in which case these off-site habitats for not need to be legally secured again. If off-site habitats do not already have a legal agreement, the developer must enter a section 106 agreement before planning permission is granted.
- 5.6 As a last resort only, statutory biodiversity credits can be purchased from the credit sales service provided by Natural England which is a financial contribution which counts towards 10% BNG which is used to fund biodiversity enhancements across England. Prices are based on the cost to create, maintain and monitor different habitat types and there is a mark-up to prevent statutory credit prices undercutting the off-site market.

6.0 References

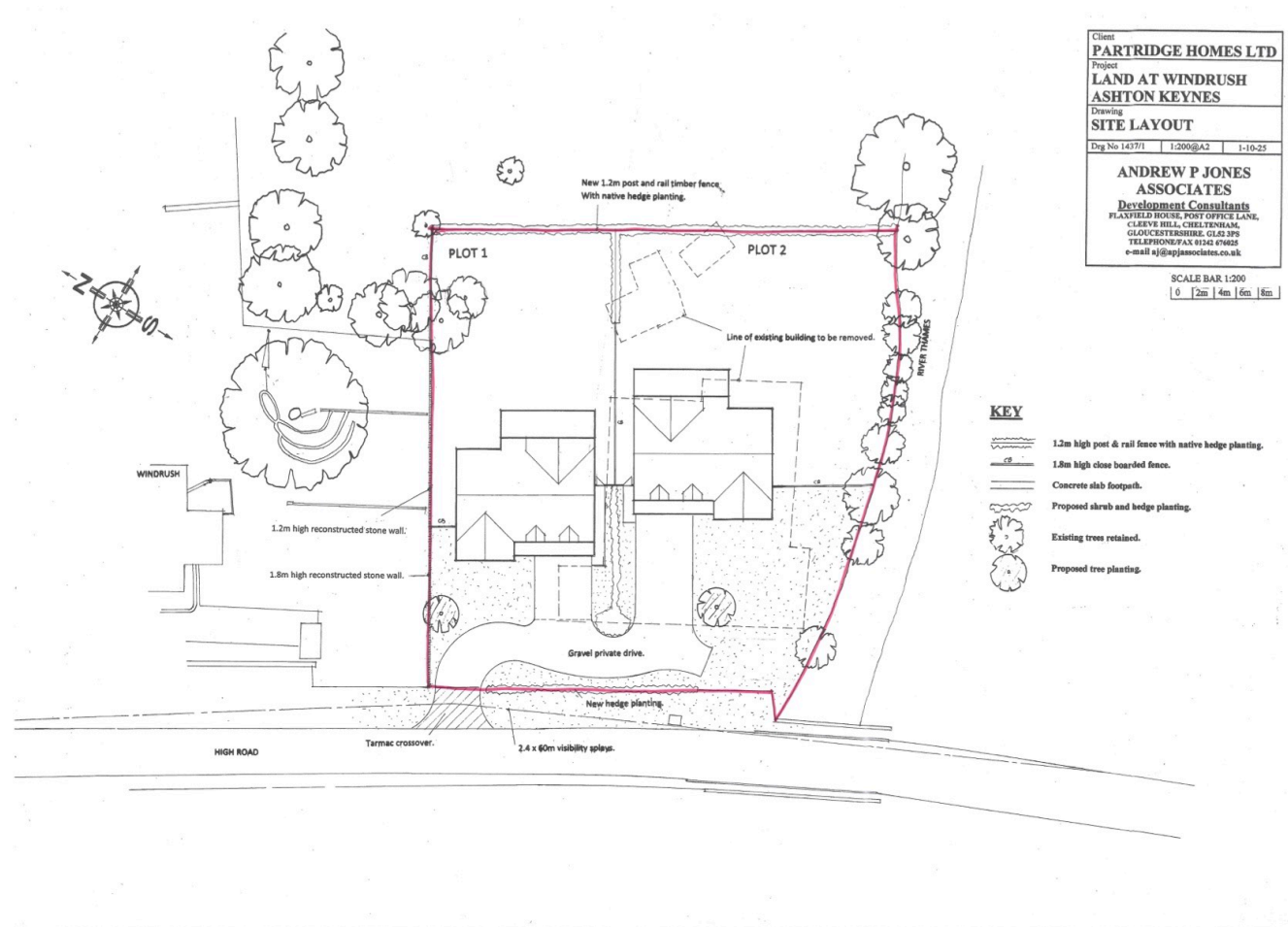
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7.0 Plans

Plan 1 – Proposed Site Plan - Full resolution landscape plan provided separately.



8.0 Appendices

Appendix 1 – Statutory Biodiversity Metric Calculation Tool

See attached Excel spreadsheet

Appendix 2 – Baseline Habitat Condition Assessments

See attached Excel spreadsheet

Appendix 3 – UKHab Baseline Habitat Plan

See attached plan

