BIODIVERSITY NET GAIN – DESIGN STAGE REPORT

GATE FARM, CHIPPENHAM, WILTSHIRE

carried out by

CLARKSON & WOODS
ECOLOGICAL CONSULTANTS

commissioned by

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OCTOBER 2023

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EXECUTIVE SUMMARY

- Clarkson and Woods Ltd. was commissioned by David Wilson Homes to carry out a Biodiversity Net Gain Assessment of land associated with Gate Farm in Chippenham, Wiltshire (SN15 3RE) to inform a proposed planning application.

- The development proposals for the Site comprise a residential development of up to 150 dwellings with associated parking and gardens, access roads, Public Open Space and landscaping.

- This report details the methodology and rationale applied to conduct the Biodiversity Net Gain assessment, using the Natural England Biodiversity Metric 4.0 calculation tool. A description of baseline and post-development habitat type and condition is provided, including justification for the condition assessments applied within the Metric.

- The Site predominantly comprised five grassland fields rotationally grazed by horses and sheep, a small area of traditional orchard, a complex of thirteen mixed-use agricultural buildings, tall ruderal and scrub vegetation, and allotments associated with neighbouring properties. The fields were bounded by a network of 11 hedgerows.

- Post-development, the Site will comprise dwellings, associated infrastructure and urban habitats to the west, including a number of attenuation features. Field 5 will comprise grassland, scrub, pond and further traditional orchard habitats, and additional trees planted on Site. Hedgerows will be largely retained within the proposals, and further hedgerow habitat created.

- The proposed development will result in a net gain for biodiversity, with 28.36% gains provided in Habitat Units and 60.75% gains in Hedgerow Units, in line with local and national planning policies.

1 INTRODUCTION

1.1 Overview

1.1.1 Clarkson and Woods Ltd. was commissioned by David Wilson Homes to carry out a Biodiversity Net Gain (BNG) Assessment of a development proposed at land associated with Gate Farm in Chippenham, Wiltshire, SN15 3RE, hereafter referred to as 'the Site'.

1.2 Project Background

1.2.1 The Site comprised several fields and a complex of buildings associated with Gate Farm, located off Stanley Lane in Chippenham, Wiltshire. The Site consisted largely of grassland habitat, grazed by horses and sheep to varying degrees across the five fields, bounded by a network of hedgerows and ditches. Habitats within the Site also included areas of scrub and ruderal vegetation, allotments associated with neighbouring dwellings and a small field of traditional orchard habitat.

1.2.2 The Site was immediately bounded by a small woodland parcel to the south-east, a number of residential buildings to the west and Stanley Park Youth Football Club to the east, with Stanley Lane forming the majority of the northern boundary. Habitats in the wider landscape consisted of mixed agricultural fields and associated hedgerow network, with the village of Pewsham and town of Chippenham to the north and west. The Site was generally contiguous with the rural habitats present in the surrounding area.

1.2.3 The approximate centre of the Site was at Ordnance Survey Grid Reference ST 93801 72378, and the location of the Site is shown in Figure 1.

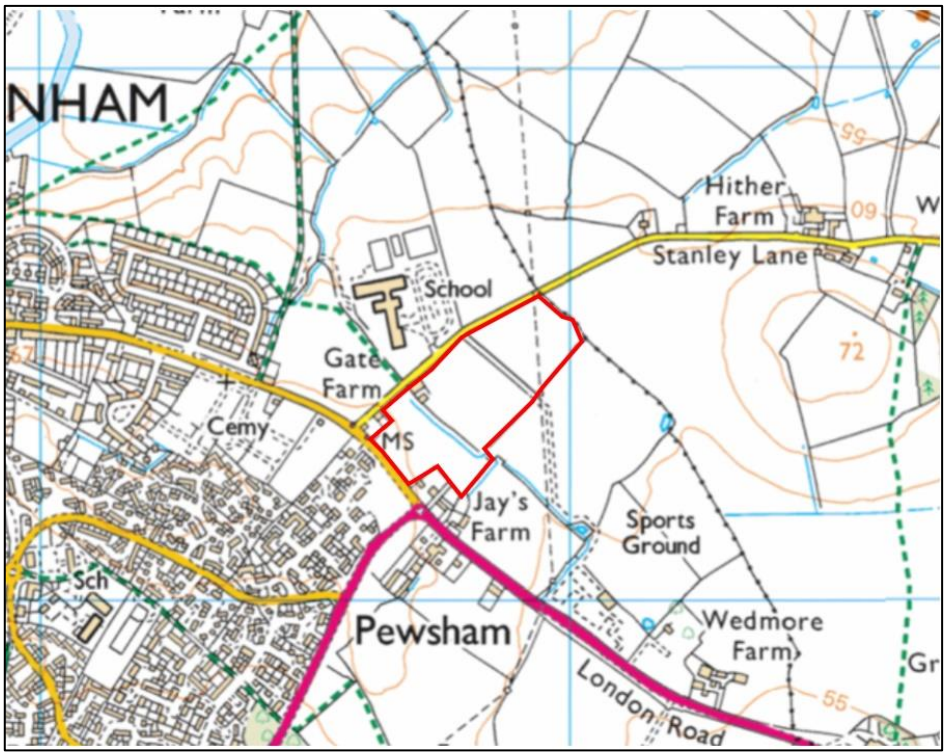


Figure 1: Ordnance Survey Map Showing Location of Site (©2023 Bing Maps)

1.2.4 The proposed works comprise the development of the Site into residential housing (up to 150 dwellings) with associated roads, landscaping and allied infrastructure.

1.2.5 The proposals will result in the loss of most grassland habitat in Fields 1-4 (ref Appendix B), the demolition of all existing buildings within the Site and removal of the wet ditch feature. Much of the hedgerow network will be retained and enhanced, with only relatively small, discrete sections to be removed to facilitate construction of access roads. No residential units will be constructed within Field 5, which has been allocated as an area of Public Open Space (POS) and ecological mitigation habitat within the scheme. This habitat area will be enhanced to maximise benefits to biodiversity.

1.2.6 The project is at the Outline Planning stage, and therefore detailed landscape proposals have not yet been prepared for the Site.

1.2.7 However, based upon the Illustrative Masterplan for the Site (Drawing No.: 230703-22548-3200C) and discussions with the project team, it is proposed that the following habitats will be created and delivered within the scheme, detailed below and shown in Appendix C:

- Allotments (0.43ha)
- Artificial unvegetated, unsealed surface (0.27ha)
- Developed land; sealed surface (comprising dwellings, access roads and other associated infrastructure) (2.56ha)
- Mixed scrub (0.08ha)
- Modified grassland (0.08ha)
- Other neutral grassland (1.90ha)
- Vegetated gardens (1.13ha)
- Ponds (non-priority habitat) (0.04ha)
- Rain garden (0.02ha)
- Species-rich hedgerows (0.43km)
- Sustainable drainage system (SUDS) (0.15ha)
- Traditional orchard (0.12ha)
- Urban and Rual trees (~50)

1.2.8 It is also proposed that 0.88km of retained hedgerows are enhanced to provide greater ecological value post-development.

1.2.9 A Landscape and Ecological Management Plan (LEMP) will be produced for the scheme at the Reserved Matters stage, alongside the detailed landscape proposals, and will set out the prescriptions for the practical creation, management, enhancement and monitoring of the habitats proposed within this report.

1.3 Assessment Scope

1.3.1 This report provides a quantitative baseline of the biodiversity value of the Site and sets out the avoidance, mitigation, compensation, and enhancement measures, which will be implemented to achieve BNG. This report follows recommendations set out within the Preliminary Ecological Appraisal (PEA) and Ecological Impact Assessment (EcIA) prepared for the Site by Clarkson and Woods Ltd[1,2].

1.3.2 Habitat features are used as a proxy measure for quantifying the value and importance of nature within a site. This enables assessments to be made on the present and future biodiversity value of a site through the calculation of biodiversity gains and losses. The process itself follows the mitigation hierarchy, which prioritises effort to first be made to avoid impacts, then minimise and only compensate as last resort. It should be noted that the mitigation hierarchy has been followed throughout the project design and assessment process and as such, no off-site habitat compensation is considered necessary as significant impacts have been avoided through design and mitigation.

1.3.3 Whilst the approach quantifies biodiversity loss or gain, it is separate to the legal and planning duties accounting for the protection afforded to habitats and species, which decision-makers and developers should discharge. Therefore, relevant assessments and consideration are still given to these to ensure legal compliance and that no environmental offences are committed.

1.3.4 This document aims to:

[1] Preliminary Ecological Appraisal (PEA) Report: Gate Farm Chippenham V5.0 – Clarkson & Woods Ltd. (August 2023)
[2] Ecological Impact Assessment (EcIA) Report: Gate Farm Chippenham V1.0 – Clarkson & Woods Ltd. (October 2023)

- Establish the total number of Habitat Units (HU), Hedgerow Units (HeU) and River Units (RU) present on the Site at baseline (baseline units);
- Establish the total number of HU, HeU and RU which will be lost, created, retained or enhanced during the delivery of ecological measures during construction or once the Site becomes operational;
- Determine whether the proposal will result in net loss, no net loss or net gain for biodiversity and to what extent;
- Justify how each of the CIEEM BNG Principles[3] have been applied to the Site; and
- Establish how BNG will be secured at the Site in the long-term.

1.3.5 This document makes reference to, and should be read in conjunction with the following documents:

- Biodiversity Metric 4.0 Calculator for Gate Farm, Chippenham (October 2023)
- Ecological Impact Assessment – Gate Farm, Chippenham (October 2023) Clarkson and Woods Ltd.
- Illustrative Masterplan (Drawing No.: 230703-22548-3200C) (July 2023) Pad Design Ltd.

1.4 Relevant Policy & Legislation

1.4.1 This BNG Assessment has been prepared with reference to the following relevant planning policies:

National Policy

1.4.2 The National Planning Policy Framework (September 2023) Paragraphs 174, 179 and 180 state:

> *174 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;*
>
> *179 To protect and enhance biodiversity and geodiversity, plans should:…*
>
> *(b) 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.*
>
> *180 When determining planning applications, local planning authorities should apply the following principles:…*
>
> *a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
>
> *c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons63 and a suitable compensation strategy exists; and*
>
> *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.*

1.4.3 The upcoming Environment Act will make a 10% Biodiversity Net Gain (for all Biodiversity Units type – HU, HeU and RU) a legal requirement, using the Metric and approval of a BNG Plan. It is expected the mandatory requirement will come to place in January 2024. Although a BNG assessment using the Metric is not yet mandatory, it is already required by most Local Authorities to demonstrate compliance with the NPPF.

Local Policy

1.4.4 Current local policy for Wiltshire stipulates that developers must ensure that no net loss in biodiversity value occurs as a result of any proposed development. However, Wiltshire Council are in the process of producing an updated local plan which is currently in review. The draft document available indicates that a minimum

[3] *Biodiversity Net Gain: Good Practice Principles for Development (CIEEM, CIRA, IEMA 2016).*

requirement of 20% net gain in biodiversity units will be expected of development schemes once the plan has been approved and adopted by the council.

1.4.5 The following BNG-related policies taken from the Wiltshire Core Strategy to 2026 (adopted January 2015) and from the Wiltshire Council Local Plan Pre-Submission Draft 2020-2038 (July 2023) are considered pertinent to the Site and the proposals. The text of each policy is given in turn in Appendix A at the end of this report.

Wiltshire Core Strategy to 2026 (Adopted January 2015)

- Core Policy 50: Biodiversity and Geodiversity

Wiltshire Local Plan Pre-Submission Draft 2020-2038 (July 2023)

- Policy 89: Biodiversity Net Gain

1.4.6 The proposed development will seek to comply with both current and draft policy recommendations, in anticipation of the updated local plan becoming live, to ensure that the best possible outcomes for biodiversity are delivered within the scheme.

1.4.7 The Site does not lie within any areas identified by Wiltshire Council as important target areas for biodiversity, or within the Green Blue Infrastructure Strategy for the county[4].

2 METHODS

2.1 Desk Study & Field Survey

2.1.1 The methodology used for the desk study and field surveys are set out within the EcIA prepared for the Site (Clarkson & Woods, Oct. 2023).

2.2 Approach to BNG

2.2.1 This report follows the guidance as set out within *Biodiversity Net Gain Report & Audit Templates (Version 1). CIEEM. July 2021*. It is also in line with the British Standard 8683:2021 (Process for Designing and Implementing Biodiversity Net Gain).

2.2.2 The stages of design of the Site and application of the mitigation hierarchy have followed *Biodiversity Net Gain: Good Practice Principles for Development (CIEEM, CIRA, IEMA 2016)*.

2.2.3 The Natural England Biodiversity Metric 4.0 (JP039), referred to hereafter as 'the Metric', has been used to complete the calculation and assessment which accompanies this document, with mapping carried out on QGIS 3.22.8.

2.2.4 Condition sheets included within Biodiversity Metric 4.0: Auditing and Accounting for Biodiversity- User Guide (Natural England, 2023). have been used to assess habitats within this report and are provided in Appendix D of this report.

2.2.5 For greater clarity, detailed justifications for the choice of habitat types, distinctiveness and condition have been provided within this BNG report rather than added to the comments column of the Metric.

2.3 Evidence of Technical Competence and Experience.

2.3.1 A suitably competent person is defined within the BNG British Standard BS8683:2020 as a 'person who can demonstrate they have acquired through training, qualifications or experience, or a combination of these, the knowledge and skills enabling that person to perform a specified task.'

2.3.2 The BNG assessment has been prepared by Molly Brown who is a qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

2.3.3 Molly has acquired appropriate training to complete this assessment through her attendance at several training courses (both internal and external), webinars and conferences relating to BNG. She has gained practical experience undertaking BNG assessments over the last two years, using relevant iterations of the

[4] A Green Blue Infrastructure Strategy for Wiltshire: Wiltshire's Natural Environment Plan 2022-2023 - Wiltshire Council (February 2022)

Metric. Molly has been assessed under the Clarkson and Woods quality assurance process as competent to complete this BNG assessment.

2.3.4 The report has been subject to a two-stage quality assurance review by appropriately experienced senior consultants who are full members of CIEEM.

2.4 Limitations

2.4.1 No significant limitations were encountered when undertaking the assessment of baseline habitat condition.

2.4.2 Given that the application is at Outline Planning stage, no detailed landscape proposals have been produced for the Site. Assumptions have been made on the condition of proposed habitats within this assessment based on discussions with the client and adopting a precautionary approach where required. This is not considered to be a significant limitation and this assessment will be updated at Reserved Matters stage,

2.4.3 It is anticipated that a non-significant margin of error in the mapping may occur throughout the process from collecting data in the field to mapping on GIS software.

3 BASELINE CONDITIONS

3.1.1 The baseline habitat types recorded within the Site and their associated condition assessments are described below and included within Appendix D1 to D8. A Habitat Baseline Plan, prepared on GIS and using the UK Habitat Classification, is provided in Appendix B.

3.1.2 To the best of the applicant's knowledge, any habitat degradation of pre-development habitats since 30 January 2020 has been accounted for in the baseline.

3.1.3 There are no designated sites for nature conservation present within the Site, and the location of the Site is not considered to be strategically significant for county-level biodiversity strategy.

3.2 Habitat Units

Heathland and Shrub

3.2.1 Baseline scrub condition assessments are provided in Appendix D1.

Blackthorn Scrub

3.2.2 A small area (0.02ha) of blackthorn-dominated scrub was recorded to the south of Field 1, where self-seeded saplings had established, extending from the hedgerow base into the field. This scrub habitat was noted as being particularly dense, but generally lacking in structural diversity.

3.2.3 The blackthorn scrub habitat within the Site was assessed as being in 'Poor' condition.

Bramble Scrub

3.2.4 Several patches of dense bramble scrub were recorded in the area surrounding the complex of buildings within the Site and formed the northern end of H5. The establishment of bramble scrub habitat likely resulted from lack of vegetation management in this area and was encroaching into the urban habitat, covering debris and metal storage containers.

3.2.5 Condition assessments are Not Applicable for bramble scrub.

Mixed Scrub

3.2.6 Mixed scrub habitat occupied a very small (0.01ha) area of the Site, along the eastern bank of D1. This habitat consisted of several woody species of varying maturity, which were sparsely distributed along the ditch bank.

3.2.7 The mixed scrub habitat within the Site was assessed as being in 'Poor' condition.

Grassland

Baseline grassland condition assessments are provided in Appendices D2 to D4.

Other Neutral Grassland

3.2.8 Following completion of further botanical surveys on Site, as detailed within the EcIA report, three of the five fields were classified as Other Neutral Grassland (ONG) habitat on account of the diversity of grassland species present within the sward. Fields 1-3 were considered to be contiguous grassland habitat, separated by temporary electric and wooden post and rail fencing, that differed in condition due to variations in management. The fields were rotationally grazed by horses and mown in some areas.

3.2.9 At the time of the surveys, grassland to the south of Field 1 and within Field 3 were largely unmanaged, with relatively long sward heights and tussocks beginning to form within Field 1.

3.2.10 ONG habitat within Fields 1 and 2 was assessed as being in 'Poor' condition, as the essential criteria relating to species diversity was not satisfied, whereas ONG habitat within Field 3 was assessed as being in 'Moderate' condition.

Modified Grassland

3.2.11 Grassland within Fields 4 and 5 was classified as modified grassland following detailed botanical survey. Field 4 was tightly horse-grazed with evidence of poaching present across the field. Management of Field 5 varied across the surveys, with methods including sheep-grazing and cutting. Both fields were relatively low in diversity of grasses and forbs.

3.2.12 All modified grassland habitat within the Site was assessed as being in 'Poor' condition.

Traditional Orchard

3.2.13 A single field of 'traditional orchard' habitat was recorded within the Site. This habitat type is identified as priority habitat within the Wiltshire BAP and under the NERC Act, however the area itself is not listed on MAGIC as 'designated' orchard. The orchard consisted of several fruit trees, namely apple and plum, oversailing mown, modified grassland habitat. The orchard is a poor example of 'traditional orchard' as defined under UKHab due to the lack of habitat structure and low diversity and heavy management of grassland underneath the trees, which was more representative of an 'intensive orchard'. Using a precautionary approach habitat has been classified as 'traditional orchard'. Historical aerial imagery shows that the orchard trees were planted around 20 years ago. The exact root stock and fruiting varieties are unknown as they affect the characteristics of orchards and whether trees will eventually be long-lived, form veteran features and be eligible as 'traditional'. The trees present were of varying ages, although most were considered to be at least 15 years old (although no more than 20 years old). The field was bounded to the north and west by hedgerow, and by wooden post and rail fencing on the remaining boundaries.

3.2.14 The traditional orchard habitat on Site was assessed as being in 'Moderate' condition.

Sparsely Vegetated Land

3.2.15 A baseline condition assessment for ruderal/ephemeral is provided in Appendix D6.

Ruderal / Ephemeral

3.2.16 Ruderal/ephemeral vegetation was noted within the Site, largely concentrated surrounding the complex of buildings to the north. A smaller area of ruderal vegetation was also recorded in the south-eastern corner of Field 4. The vegetation typically comprised undesirable species, as well as urban pioneer species, which provided some variation in structure.

3.2.17 The ruderal/ephemeral habitat present within the Site was assessed as being in 'Moderate' condition.

Urban

3.2.18 Baseline condition assessments for urban habitats are provided in Appendix D6.

Developed Land; Sealed Surface

3.2.19 Developed land; sealed surface habitat within the Site consisted of a complex of 14 buildings, as well as existing infrastructure at the entrance to the Site and an access road to Stanley Park Youth Football Club running through the centre of the Site.

3.2.20 Condition assessments are Not Applicable for developed land; sealed surface.

Artificial Unvegetated, Unsealed Surface

3.2.21 Habitat surrounding the buildings on Site comprised artificial unvegetated, unsealed surface. Stone chippings had been used to create access between the buildings and the loose surface material had allowed occasional plant species to establish.

3.2.22 Condition assessments are Not Applicable for artificial unvegetated, unsealed surface.

Allotments

3.2.23 A small (0.03ha) allotment plot was recorded to the north of the Site, associated with existing, adjacent residential properties. The allotment beds were immediately surrounded by grassland managed for amenity, and the beds were planted with a mix of vegetables and garden flowers.

3.2.24 The allotment habitat on Site was assessed as being in 'Moderate' condition.

Bioswale

3.2.25 A small drainage feature was recorded on Site associated with the complex of buildings, and was categorised as bioswale under UKHab. The feature consisted of a short (~12m) channel vegetated by grasses and ruderals.

3.2.26 The bioswale habitat was assessed as being in 'Moderate' condition.

3.3 Hedgerow Units

3.3.1 Baseline hedgerow habitat type condition assessment is provided in Appendix D8.

3.3.2 A network of twelve hedgerows were recorded within and bounding the Site, with a total length of 1.39km. Most hedgerows were species-poor, with a small number associated with dry ditch features and containing standard trees.

3.3.3 The different hedgerow types, and their associated baseline conditions and HeU, are summarised in Table 1 below.

Table 1: Baseline Hedgerow Units

Hedgerow Type	Total Length (km)	Condition	Hedgerow Units (HeU)
Native Hedgerow (H2 and H8)	0.185km	Moderate	1.11HeU
Native Hedgerow (H4, H6, H7 and H11b)	0.545km	Good	2.17HeU
Native Hedgerow with Trees (H1)	0.036km	Moderate	0.29HeU
Native Hedgerow with Trees (H9)	0.115km	Good	1.38HeU
Native Hedgerow – Associated with Bank or Ditch (H11a)	0.104km	Moderate	0.83HeU
Species-rich Native Hedgerow – Associated with Bank or Ditch (H3)	0.107km	Moderate	1.93HeU
Species-rich Native Hedgerow – Associated with Bank or Ditch (H10)	0.140km	Good	1.68HeU
Species-rich Native Hedgerow with Trees – Associated with Bank or Ditch (H5)	0.153km	Good	3.67HeU

4 PROPOSED DESIGN

4.1.1 The proposed habitat types within the Site and their associated targeted condition assessments are described below and detailed within Appendix D1 to D8. A Proposed Habitats Plan, prepared on GIS and translating proposed habitat to the UK Habitat Classification (to allow comparison with the baseline situation), has been provided in Appendix C. The proposed habitats plan is based on the proposed design and Illustrative Masterplan for the Site. This plan will be refined alongside detailed landscape plans as the application progresses.

4.1.2 More details of the habitats to be created and / or enhanced, their delivery and management in the long-term will be provided within a LEMP for the Site, to be prepared post-determination of a Reserved Matters application.

4.1.3 It has been necessary to make assumptions about the condition and distinctiveness of created and / or enhanced habitats to complete the Metric. Habitat creation and enhancement in the Metric is based on a realistic and achievable scenario. Targeted conditions and associated condition assessment are provided in Appendices D1 to D8 where a column specific to target condition has been added.

4.1.4 Other biodiversity enhancements (such as habitat boxes and hibernacula) are not included within the assessment but will be described in the LEMP report.

4.2 Habitat Units

Habitat Loss

4.2.1 It has been assumed at this stage that all baseline habitats, with the exception of developed land; sealed surface and traditional orchard habitat, will be lost within the proposals and new habitats created. The extent of each habitat type that will be lost as a result of the proposals is summarised in Table 2 below.

Table 2: Habitats to be Lost

Habitat Type	Area to be Lost (ha)
Heathland and Shrub – Blackthorn Scrub	0.02ha
Heathland and Shrub – Bramble Scrub	0.06ha
Heathland and Shrub – Mixed Scrub	0.01ha
Grassland – Other Neutral Grassland	1.96ha
Grassland – Modified Grassland	4.18ha
Grassland – Traditional Orchard	0.05ha
Sparsely Vegetated Land – Ruderal/Ephemeral	0.08ha
Urban – Developed Land; Sealed Surface	0.12ha
Urban – Artificial Unvegetated Unsealed Surface	0.27ha
Urban – Allotments	0.03ha

Habitat Retention

Grassland

Traditional Orchard

4.2.2 Much of the traditional orchard habitat identified on Site will be retained within the proposals (0.11ha). The current 'Moderate' condition of the habitat will be maintained post-development.

4.2.3 In order to minimise potential damage to the retained habitat, a Biodiversity Protection Zone (BPZ) will be established surrounding the retained orchard and maintained during the construction phase. The BPZ will take into account Root Protection Areas (RPAs) of the retained trees in line with BS 5837: 2012.

Urban

Developed Land; Sealed Surface

4.2.4 The existing access road to the adjacent Stanley Park Youth Football Club that runs through the centre of the Site will be retained to ensure continued access to this facility from Stanley Lane. This habitat type is of very low distinctiveness and will not require any management post-development, as a default condition is applied within the Metric.

Habitat Creation

Heathland and Shrub

Mixed Scrub

4.2.5 Mixed scrub habitat is proposed within Field 5 to provide a mosaic of habitat structure, alongside ONG and pond habitats. The scrub will be planted with a range of native woody species and managed to achieve 'Moderate' habitat condition, to satisfy at least three of five relevant assessment criteria (Appendix D1).

4.2.6 The mixed scrub habitat will occupy 0.08ha, so as not to negatively impact the condition of the surrounding grassland habitat and will deliver 0.54HU within the scheme.

Grassland

Other Neutral Grassland

4.2.7 Grassland within Field 5, within the undeveloped margins of the Site and surrounding attenuation features will be seeded with a suitable, diverse grassland mix to deliver ONG habitat. This grassland will be managed to promote species richness and achieve 'Moderate' habitat condition.

4.2.8 In order to achieve the target condition, the proposed ONG must satisfy at least three of six condition assessment criteria, including the essential criterion (Appendix D3). Management measures will include limiting coverage of bracken and scrub and ensuring the absence of invasive species. Provision of designated footpaths through the Public Open Space (POS) will seek to reduce physical damage to the grassland.

4.2.9 The creation of 1.89ha of ONG within the Site will provide 12.71HU post-development.

Modified Grassland

4.2.10 Whilst the majority of grassland within the Site will comprise ONG, a small (0.08ha) area of modified grassland is proposed, associated with the Local Area of Play in the centre of the Site. As this area will primarily be used for recreation, the grassland will be managed for amenity and is likely to achieve only 'Poor' condition (Appendix D2). The area will be kept free of bracken, scrub and invasive non-native species.

4.2.11 Creation of 0.08ha of modified grassland in 'poor' condition will result in the delivery of 0.15HU on Site.

Traditional Orchard

4.2.12 To mitigate for lost traditional orchard habitat and further increase the extent of this habitat type within the Site, 0.12ha of traditional orchard of 'Moderate' condition is proposed as a community orchard area. This habitat will comprise fruit trees, ideally of the *Rosaceae* family such as cherry, plum, apple and pear, oversailing grassland habitat managed as ONG. The area will not be treated with herbicides and trees will be managed as appropriate to promote healthy growth.

4.2.13 To achieve the proposed condition, the habitat must pass at least four of eight condition assessment criteria (Append D4). It is not anticipated that the proposed traditional orchard habitat within the Site will satisfy the relevant essential criteria required to achieve 'Good' condition, given that the trees will be newly planted post-construction and are unlikely to reach ancient/veteran age or produce significant deadwood within the timescales of the delivery of BNG units.

4.2.14 Successful delivery of traditional orchard habitat within the Site will provide 0.71HU.

Urban

Developed Land; Sealed Surface

4.2.15 Delivery of up to 150 dwellings within the Site will result in the creation of 2.56ha of developed land; sealed surface. The developed area will comprise residential dwellings, associated access roads and ancillary structures.

4.2.16 No management prescriptions relating to this habitat type are required post-construction, as a default condition is applied within the Metric.

4.2.17 Given that this habitat type is of very low distinctiveness and offers no intrinsic value for biodiversity, no additional habitat units will result from the creation of developed land; sealed surface.

Artificial Unvegetated, Unsealed Surface

4.2.18 A network of footpaths is proposed within Field 5, providing access to the POS and Local Equipped Area of Play (LEAP). It has been assumed that these footpaths and LEAP will comprise 0.27ha of artificial unvegetated, unsealed surface habitat, likely either wood or stone chippings.

4.2.19 Per 'Developed Land; Sealed Surface' above, no additional habitat units will result from creation of this habitat type and no specific management actions are required.

Allotments

4.2.20 Also within Field 5, 0.43ha of allotment habitat of 'Moderate' condition is proposed to deliver further community benefits.

4.2.21 To achieve the proposed condition, two of three core assessment criteria must be achieved (Appendix D6). Whilst individual allotment plots will be under private control by residents, the surrounding habitat will be managed by the developer (or nominated management company). It is therefore expected that the allotment area be kept free of invasive non-native species. It is assumed that nectar and foraging resources resulting from allotment planting by residents will deliver benefits to wildlife in the absence of management.

4.2.22 Provided the proposed condition is achieved, allotment habitat will deliver 1.66HU within the scheme.

Vegetated Garden

4.2.23 Associated with the residential dwellings on Site, 1.13ha of vegetated garden habitat is proposed. These areas will be under private ownership, and a default condition is applied within the Metric.

4.2.24 The provision of vegetated garden habitat within the Site will result in the delivery of 2.18HU.

Rain Garden

4.2.25 A small (0.02ha) area of rain garden habitat is proposed in the centre of the Site, alongside H5 and proposed Local Area of Play (LAP).

4.2.26 This habitat will be managed to achieve at least 'Moderate' condition by targeting two of three core assessment criteria (Appendix D6); the rain garden will be kept free of invasive non-native species and will provide varied vegetation structure to benefit a range of species.

4.2.27 This area of rain garden habitat will deliver 0.07HU post-development.

Sustainable Urban Drainage System (SUDS)

4.2.28 In the south-west corner of the Site, a SUDS feature is proposed. The area will be managed primarily to deliver attenuation benefits, but also to provide benefits to biodiversity and achieve 'Moderate' condition.

4.2.29 In order to achieve 'Moderate' habitat condition, the SUDS will be managed to ensure that at least three of five relevant urban condition assessment criteria are satisfied (Appendix D6). Plug planting of wetland/aquatic vegetation is recommended to maximise the biodiversity value of the habitat.

4.2.30 Creation of SUDS habitat under appropriate management will result in the delivery of 0.17HU.

Bioswale

4.2.31 Along the southern boundary of Field 4, a bioswale area is proposed between the developed area and retained H6. It is proposed that the bioswale habitat will achieve 'Moderate' condition against the urban condition assessment criteria (Appendix D6), and managed per the SUDS habitat, above.

4.2.32 The provision of 0.082ha of bioswale in 'Moderate' condition will deliver 0.21HU within the scheme.

Lakes

Ponds (Non-Priority Habitat)

4.2.33 Within Field 5, the creation of a pond is proposed, that will be managed to maximise biodiversity value and provide aquatic habitat within the Site suitable for a range of species. The pond will be managed to achieve at least 'Moderate' condition (Appendix D5).

4.2.34 Creation of 0.04ha of pond habitat of 'Moderate' condition will result in the delivery of 0.29HU.

4.2.35 Given the proximity of three ponds to the Site (within 250m) that returned positive records of great crested newts (GCN), it is considered possible that GCN may populate the Site and utilise the newly created pond for breeding. Presence of GCN within the pond would alter the habitat classification and if present the pond would be considered 'priority' habitat. However, on the basis of providing a precautionary assessment, the proposed pond has been classified as non-priority habitat within this report and within the Metric.

Individual Trees

Rural Tree

4.2.36 It is proposed that 16 trees will be planted within Field 5, occupying a total area of ~0.59ha. These trees will be oversailing ONG habitat managed for biodiversity and have therefore been classified as rural trees within the Metric.

4.2.37 The trees will be managed to achieve 'Moderate' condition and must achieve at least three of six condition assessment criteria (Appendix D7). All newly planted trees will be native species of local provenance and will be subject to management only when they pose a health and safety hazard to enable creation of deadwood and ecological niches where possible.

4.2.38 Rural trees will deliver 1.79HU within the scheme.

Urban Tree

4.2.39 Within the developed areas of the Site a further 37 trees will be planted (outside vegetated gardens), classified as urban trees. These trees will be managed per 'Rural Trees' above to achieve 'Moderate' condition.

4.2.40 Urban trees will occupy ~1.35ha and will deliver 4.14HU post-development.

4.3 Hedgerow Units

Hedgerow Loss

Hedgerows

4.3.1 Within the proposals, several lengths of hedgerow will be lost to facilitate access to and within the Site. The largest sections to be removed will be at the main entrance to the Site, and within H5 to allow construction of an internal access road between dwellings. Other minor losses are attributable to creation of pedestrian footpaths.

4.3.2 The total length of each hedgerow to be lost as a result of the proposals is provided in Table 3 below.

Table 3: Hedgerow Habitat to be Lost

Hedgerow No.	Hedgerow Type	Length to be Lost (m)
H5	Species-rich Native Hedgerow with Trees – Associated with Bank or Ditch	30
H7	Native Hedgerow	4
H11a	Native Hedgerow – Associated with Bank or Ditch	16
H11b	Native Hedgerow	5

Hedgerow Retention

Hedgerows

4.3.3 Hedgerows 1-4 will be retained in their entirety within the proposals, and the remaining length of H5 will also be retained. The retained hedgerows will be managed to maintain their baseline condition and hedgerow type. The management of these hedgerows will remain outside of private ownership and will seek to provide year-round habitat and foraging resources for a range of species.

Hedgerow Creation

Species-rich Native Hedgerows

4.3.4 Six new hedgerows are proposed within the Site, all of which will fit the 'Species-rich Native Hedgerow' type. The hedgerows will be planted with a range of woody species of local provenance, including flowering and fruiting species. The total length of hedgerow habitat to be created is 0.43km.

4.3.5 These exclude any hedgerows as part of vegetated gardens.

4.3.6 All newly created hedgerows will be managed to achieve 'Good' condition (Appendix D8); management will promote dense growth, and management of adjacent grassland habitat will prevent establishment of undesirable species.

4.3.7 Provision of 0.43km additional hedgerow will deliver 3.39HeU within the scheme.

Hedgerow Enhancement

Native Hedgerows, Native Hedgerows with Trees, and Native Hedgerows – Associated with Bank or Ditch

4.3.8 Hedgerows 6, 7, 8, 9, 11a and 11b will be enhanced post-development to increase their habitat distinctiveness score within the Metric. These hedgerows will be supplemented with further planting of additional native species, and the hedgerows will be classified as 'species-rich' as a result.

4.3.9 These hedgerows will also be managed to achieve 'Good' condition (Appendix D8).

4.3.10 The enhancement of these features will deliver a total of 9.14HeU.

Species-rich Hedgerow – Associated with Bank or Ditch

4.3.11 H10 will be enhanced to achieve 'Good' condition post-development, to deliver 2.46HeU.

5 BNG Good Practice Principles for Development

5.1.1 Table 4 below provides full justification of how each of the 10 BNG Principles have been applied as part of the BNG assessment.

Table 4: BNG Good Practice Principles and Justification

BNG Principle	Justifications
Principle 1: Apply the Mitigation Hierarchy	Measures to avoid and minimise biodiversity loss and to rehabilitate/restore biodiversity affected by the project are defined and documented within the EcIA for the Site. Their implementation, management and monitoring requirements are detailed within Section 8 of this report, with more detailed information to be provided in a LEMP at Reserved Matters stage.
Principle 2: Avoid losing biodiversity that cannot be offset by gains elsewhere	No irreplaceable habitats are impacted by the proposed development.
Principle 3: Be inclusive and equitable	The BNG Report and Metric have been provided to the LPA to enable officers to adequately determine whether sufficient BNG can feasibly be achieved within the proposed development.
Principle 4: Address risks	The LEMP swill set out a programme of regular monitoring for the life of the scheme to ensure habitat creation and management objectives are met. It will ensure that personnel are appointed to be responsible for this delivery throughout the duration of the scheme. The LEMP will also allow for the amendment and variation of management objectives and practices to best suit the conditions on Site, specific practicalities and challenges, and the outcome of monitoring which may arise over the life of the scheme.
Principle 5: Make a measurable Net Gain	See Section 6. The BNG assessment using Metric 4.0 determined a quantitative: • 22.11% net gain in Habitat Units • 66.02% net gain in Hedgerow Units
Principle 6: Achieve the best outcomes for biodiversity	The BNG design has considered local conservation priorities (species and habitats). This includes the Wiltshire Biodiversity Action Plan (BAP) as well as policies within the Wiltshire Core Strategy to 2026. In particular the BNG design has considered to contribute to supporting the following priority species populations and priority habitats: • Ancient and species-rich hedgerows • Built environment • Traditional orchard • Bats (multiple species) • Birds (multiple species) • Invertebrates (multiple species) • Common toad • Great crested newt • Palmate newt • Slow worm • Grass snake

BNG Principle	Justifications
	• Adder • Dormouse • West European hedgehog • Harvest mouse
Principle 7: Be additional	The proposed conservation gains will be caused by the project activities and would not have occurred in other circumstances. For example, creation of a wildlife pond and planting of additional urban and rural trees will provide habitats that were not previously present within the Site (prior to development).
Principle 8: Create a Net Gain legacy	The ecologists have been engaged with developers from an early stage of the project to ensure inherent avoidance measures were incorporated into scheme design, and mitigation and enhancement measures considered and implemented to achieve the best possible outcomes for biodiversity. The Site design has taken into account climate change resilience through creation of multiple attenuation features to withstand possible flood risk in the future. Minimum professional and technical requirements for those responsible for the delivery of BNG-related habitat management will be specified in the LEMP to be provided for the Site. Consideration of management costs will also be discussed and detailed where necessary. The BNG design has included features and suitable habitat to benefit a range of priority species. For example, creation of a wildlife pond will contribute to the network of existing ponds local to the Site that are known to support GCN.
Principle 9: Optimise sustainability	The scheme will deliver benefits to local residents through the provision of community green spaces such as the orchard, allotments and POS, as well as including additional foot and cycle paths. The proposed bioswale, SUDS, rain garden and wildlife pond will contribute to floodwater attenuation on Site and in the local area. Local contractors and suppliers will be used wherever possible during construction.
Principle 10: Be transparent	The commitment to BNG is stated by the project developer in a publicly available document: • Gate Farm, Chippenham: Design and Access Statement (July 2023) Pad Design, David Wilson Homes. The LEMP will contain a reporting commitment at key project milestones. Part of the LEMP's monitoring and reporting commitment will include the submission of findings to the Local Environmental Records Centres. The design of Site BNG and habitat creation methods have been influenced by extensive experience in this field. The LEMP will detail the choices taken in deciding seed mixes, ground preparation and aftercare etc.

6 BNG METRIC

6.1.1 The information provided in the Metric are directly related to the Habitat Baseline Plan (Appendix B) and the Proposed Habitats Plan (Appendix C). The completed Metric spreadsheet will be submitted separately.

6.1.2 The proposed development will result in a significant net gain of biodiversity units, including HU and HeU, as shown in the headline results below.

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	5.76
	Hedgerow units	7.94
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	28.36%
	Hedgerow units	60.75%
	Watercourse units	0.00%

Figure 2: Headline Results (taken from Biodiversity Metric 4.0)

6.1.3 The proposals will result in a total net change of **5.76HU**, representing an increase of **28.36%.** The majority of HU will be delivered by the creation of ONG habitat within the Site, which will be managed to maximise biodiversity value, alongside the creation of aquatic habitats, traditional orchard and planting of additional urban and rural trees on Site.

6.1.4 Delivery of HU within the Site satisfies trading rules for area-based habitats within the Metric.

6.1.5 The proposals will result in a total net change of **7.94 HeU**, representing an increase of **60.75 %.** The net gain in HeU will be provided as a result of hedgerow creation and enhancement of retained hedgerows.

6.1.6 The proposed changes to hedgerow habitat within the Site fail to satisfy the trading rules for linear habitats within the Metric due to removal of very high distinctiveness habitat (H5). The Metric requires that replacement habitat of the same hedgerow type is provided to offset the loss, however, given the extensive HeU gains and provision of suitable habitat for a range for species, the failure to satisfy trading rules as a result of this development is not considered likely to result in significant impacts on biodiversity in the context of the local landscape and therefore the failure of the trading rule should, in this instance, be dismissed.

7 PROJECT IMPLEMENTATION AND CONSTRUCTION PLAN

7.1.1 The information required for the Project Implementation and Construction Plan will be provided within the following documents:

- Landscape Ecological Management Plan
- Construction Environmental Management Plan: Biodiversity

7.1.2 These documents will be provided at Reserved Matters stage following finalisation and receipt of detailed landscape plans, and will be informed by the recommendations set out within the EcIA, as well as proposed habitat types and conditions within this report.

8 BIODIVERSITY NET GAIN MANAGEMENT AND MONITORING PLAN

8.1.1 The LEMP will provide detailed management and maintenance information for Years 1 – 5 and with broader management aims for the lifetime of the BNG commitment (30 years) and the lifetime of the project.

8.1.2 A UK Habitat survey and associated BNG Condition Assessment of the establishing habitats will be undertaken at an appropriate time of the year (April to September inclusive) throughout the length of the BNG commitments of the project (30 years). The BNG monitoring surveys will be carried out in the following years: Years 1, 2, 5, 10, 15, 20 and 30. Each survey will assess the progression of establishing habitats on Site to monitor progress and likely success.

8.1.3 Outcomes of the BNG monitoring surveys will help to inform adaptive habitat management and ongoing maintenance activities to ensure that biodiversity gains can still be delivered.

8.1.4 A BNG monitoring report will be prepared after each BNG monitoring survey and will include a summary of habitat type, extent, and condition (with a comparison where applicable against the expected condition proposed in the BNG report). The BNG monitoring reports will be submitted to the planning authority.

APPENDIX A: LOCAL PLANNING POLICY RELATING TO BNG

Policy Reference	Key Policy Text
Wiltshire Core Strategy to 2026 (Adopted January 2015)	
Core Policy 50: Biodiversity and Geodiversity	**Protection** Development proposals must demonstrate how they protect features of nature conservation and geological value as part of the design rationale. There is an expectation that such features shall be retained, buffered, and managed favourably in order to maintain their ecological value, connectivity and functionality in the long-term. Where it has been demonstrated that such features cannot be retained, removal or damage shall only be acceptable in circumstances where the anticipated ecological impacts have been mitigated as far as possible and appropriate compensatory measures can be secured to ensure no net loss of the local biodiversity resource, and secure the integrity of local ecological networks and provision of ecosystem services. All development proposals shall incorporate appropriate measures to avoid and reduce disturbance of sensitive wildlife species and habitats throughout the lifetime of the development. Any development potentially affecting a Natura 2000 site must provide avoidance measures in accordance with the strategic plans or guidance set out in paragraphs 6.75-6.77 where possible, otherwise bespoke measures must be provided to demonstrate that the proposals would have no adverse effect upon the Natura 2000 network. Any development that would have an adverse effect on the integrity of a European nature conservation site will not be in accordance with the Core Strategy. **Biodiversity Enhancement** All development should seek opportunities to enhance biodiversity. Major development in particular must include measures to deliver biodiversity gains through opportunities to restore, enhance and create valuable habitats, ecological networks and ecosystem services. Such enhancement measures will contribute to the objectives and targets of the Biodiversity Action Plan (BAP) or River Basin/ Catchment Management Plan, particularly through landscape scale projects, and be relevant to the local landscape character. **Local Sites** Sustainable development will avoid direct and indirect impacts upon local sites through sensitive site location and layout, and by maintaining sufficient buffers and ecological connectivity with the wider environment. Damage or disturbance to local sites will generally be unacceptable, other than in exceptional circumstances where it has been demonstrated that such impacts: i. cannot reasonably be avoided ii. are reduced as far as possible iii. are outweighed by other planning considerations in the public interest iv. where appropriate compensation measures can be secured through planning obligations or agreements. Development proposals affecting local sites must make a reasonable contribution to their favourable management in the long-term
Wiltshire Council Local Plan Pre-Submission Draft 2020-2038 (July 2023)	
Draft Policy 89: Biodiversity Net Gain	Development must achieve a minimum of 20% Biodiversity Net Gain, or higher as stipulated in national legislation and/or policy or supplementary guidance, over the pre-development biodiversity value as measured by the latest Biodiversity Metric. Exempted development must achieve no net loss of biodiversity and should achieve appropriate net gains, aspiring to deliver at least 20% biodiversity net gain. Biodiversity net gain must be delivered in the following hierarchical manner: 1. On site delivery: where delivered on site habitats should be functionally linked to the wider habitat network creating coherent ecological networks. 2. Off-site delivery: should prioritise contributing to nearby habitat recovery and creation strategies as identified within adopted mitigation strategies, strategic wildlife corridors, Local Nature Recovery Strategy38 and, Green and Blue Infrastructure Strategy. 3. Off-site delivery: on an alternative suitable site, prioritising strategic delivery in the Local Nature Recovery Strategy area. 4. Credits: as a last resort, and where it is agreed by the Local Planning Authority no suitable alternatives exist, through the purchase of an appropriate amount of national biodiversity units/credits. Planning applications subject to mandatory Biodiversity Net Gain must submit a Biodiversity Gain Plan at the application stage that should include: - how the mitigation hierarchy has been adhered to; - justification for the baseline date and assessed value of the site prior to development, including a brief synopsis of the site's historic biodiversity value and appointing strategic significance in metric; - pre and post-development biodiversity value of onsite habitats and created off site habitats; - demonstrate how net gains are achieved through on site, off site or purchased credits, clarifying and explaining the predicted biodiversity outcomes both qualitatively and quantitatively;

Policy Reference	Key Policy Text
	- how a positive proportionate contribution has been made to the ecological networks and priorities as outlined within the Local Nature Recovery Strategy and regional Nature Recovery Networks and for maintaining or creating local ecological networks through habitat creation, protection, enhancement, restoration and management. The assessments underpinning, and the Biodiversity Gain Plan itself, must be undertaken by a suitably qualified and/or experienced ecologist and be submitted together with baseline and proposed habitat mapping in a digital format with the application.

APPENDIX B: UKHAB HABITAT BASELINE PLAN



APPENDIX C: PROPOSED HABITATS PLAN



APPENDIX D: BASELINE & PROPOSED HABITAT CONDITION ASSESSMENTS

Biodiversity Metric 4.0 uses habitat condition as one of the measures of habitat quality. The process of assessing habitat condition considers key physical characteristics and a habitat's ability to support typical flora and fauna. Appendices D1 to D8 cover all habitat types found in within the Site and their relevant condition sheet. On completion of condition assessments using the condition sheets in Appendix D, all habitat parcels have been assigned one of three condition categories: Good, Moderate or Poor. The Metric tool does allow for intermediate categories (Fairly Good and Fairly Poor) if it is not possible to distinguish between two main condition categories.

This method of assessing habitat condition has been used to:

a) Assess the condition of pre-intervention or baseline habitats to inform baseline biodiversity unit calculations.

b) Assess the condition of post-intervention habitats as part of ongoing monitoring requirements.

c) Inform habitat creation and enhancement interventions by defining what each condition state would look like for the habitat in question.

D1 CONDITION ASSESSMENT SHEET: SCRUB HABITAT TYPE

Heathland and shrub - Blackthorn scrub

Heathland and shrub - Mixed scrub

BNG Condition Assessment **Criterion Achieved (Y/N)**	**Baseline**		**Proposed**
	Blackthorn	**Mixed**	**Mixed**
The scrub is a good representation of the habitat type it has been identified as, based on its UKHab description (where in its natural range). The appearance and composition of the vegetation closely matches the characteristics of the specific scrub type. At least 80% of scrub is native, and there are at least three native woody species[1], with no single species comprising more than 75% of the cover (except hazel *Corylus avellana*, common juniper *Juniperus communis*, sea buckthorn *Hippophae rhamnoides* or box *Buxus sempervirens*, which can be up to 100% cover).	N	Y	Y
Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	N	N	N
There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA) and species indicative of sub-optimal condition make up less than 5% of ground cover.	Y	Y	Y
The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s).	Y	N	Y
There are clearings, glades or rides present within the scrub, providing sheltered edges.	N	N	N
Condition	**Poor (2/5)**	**Poor (2/5)**	**Moderate (3/5)**

Condition Assessment Result	**Condition Assessment Score**
Passes 5 of 5 criteria	Good (3)
Passes 3 or 4 of 5 criteria	Moderate (2)
Passes 0, 1 or 2 of 5 criteria	Poor (1)

D2 CONDITION ASSESSMENT SHEET: GRASSLAND HABITAT TYPE (LOW DISTINCTIVENESS)

Grassland - Modified Grassland

BNG Condition Assessment Criterion Achieved (Y/N)		Baseline		Proposed
		Field 4	Field 5	
1	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (this may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.**	N	N	N
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	N	Y	N
3	Some scattered scrub (including bramble *Rubus fruticosus* agg.) may be present, but scrub accounts for less than 20% of total grassland area.	Y	Y	Y
4	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	N	N	N
5	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	N	Y	N
6	Cover of bracken less than 20%	Y	Y	Y
7	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	Y	Y	Y
Condition		**Poor (3/7 excluding essential criterion 1)**	**Poor (5/7 excluding essential criterion 1)**	**Poor (3/7 excluding essential criterion 1)**

Condition Assessment Result	Condition Assessment Score
Passes 6 or 7 criteria including passing essential criterion 1	Good (3)
Passes 4 or 5 of 7 criteria; OR Passes 4 or 5 of 7 criteria including passing essential criterion 1	Moderate (3)
Passes 0, 1, 2 or 3 of 7 criteria; OR 4, 5 or 6 criteria but failing criterion 1	Poor (1)

D3 CONDITION ASSESSMENT SHEET: GRASSLAND HABITAT TYPE (MEDIUM, HIGH & VERY HIGH DISTINCTIVENESS)

Grassland - Other Neutral Grassland

BNG Condition Assessment Criterion Achieved (Y/N)		Baseline		Proposed
		Fields 1 and 2	Field 3	
1	The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland habitat type are consistently present. **Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.**	N	Y	Y
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	N	Y	Y
3	Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Y	Y	N
4	Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	Y	Y	Y
5	Combined cover of species indicative of sub-optimal condition[2] and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]) are present, this criterion is automatically failed.	Y	Y	Y
ADDITIONAL CRITERION – must be assessed for all non-acid grassland types				
6	There are 10 or more vascular plant species per m^2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 2 and 4 cannot contribute towards this count). **Note - this criterion is essential for achieving Good condition for non-acid grassland types only.**	N	N	N
Condition		**Poor (3/6 excluding essential criteria 1 and 6)**	**Moderate (5/6 excluding essential criterion 6)**	**Moderate (4/6 excluding essential criterion 6)**

Condition Assessment Result	Condition Assessment Score
Passes 5 or 6 criteria, including essential criteria 1 and 6	Good (3)
Passes 3 or 4 criteria, including essential criterion 1	Moderate (2)
Passes 0, 1 or 2 of 6 criteria; OR Passes 3 or 4 criteria excluding criteria 1 and 6	Poor (1)

D4 CONDITION ASSESSSMENT SHEET: ORCHARD HABITAT TYPE

Grassland – Traditional orchard

BNG Condition Assessment Criterion Achieved (Y/N)		Baseline	Proposed
A	Presence of ancient and or veteran trees. **Note – this criterion is essential for achieving Good condition.**	N	N
B	Presence of deadwood in or on trees, or on the ground: at least 20% of mature trees have deadwood associated with them. Some examples of deadwood are: standing, attached and fallen trees or limbs; dead stems; branches and branch stubs greater than 10 cm diameter; and internal cavities. The types and distribution of deadwood provide a range of habitats suitable to support a wide assemblage of saproxylic invertebrates. **Note - this criterion is essential for achieving Good condition.**	N	N
C	Less than 5% of fruit trees are smothered by scrub. Small patches of dense scrub and or scattered scrub growing between trees can be beneficial to biodiversity, however these occupy less than 10% of ground cover.	Y	Y
D	There is evidence of formative and or restorative pruning to maintain longevity of trees.	N	Y
E	At least 95% of the trees are free from damage caused by humans or animals, for example browsing, bark stripping or rubbing on non-adjusted ties.	Y	Y
F	Grassland is not overgrazed, poaching is not evident around the trees, with no more than 10% of trees poached under the canopy.	Y	Y
G	Species richness of the grassland is equivalent to medium, high or very high distinctiveness grassland.	N	Y
H	There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA) and species indicative of sub-optimal condition make up less than 10% of ground cover.	Y	Y
Condition		**Moderate (4/8 excluding essential criteria 1 and 2)**	**Moderate (6/8 excluding essential criteria 1 and 2)**

Condition Assessment Result	Condition Assessment Score
Passes 6-8 criteria, including essential criteria A and B	Good (3)
Passes 4 or 5 criteria; OR Passes 6 or 7 criteria but fails an essential criterion	Moderate (2)
Passes 3 or fewer criteria	Poor (1)

D5 CONDITION ASSESSSMENT SHEET: POND HABITAT TYPE

Lakes - Ponds (non-priority habitat)

	BNG Condition Assessment **Criterion Achieved (Y/N)**	**Proposed**
1	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	N
2	There is semi-natural habitat (i.e. Moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	Y
3	Less than 10% of the water surface is covered with duckweed or filamentous algae.	Y
4	The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework.	Y
5	Pond water levels can fluctuate naturally throughout the year. No obvious dams, pumps or pipework.	Y
6	There is an absence of non-native plant and animal species[2].	Y
7	The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	Y
ADDITIONAL CRITERIA - only applicable to non-woodland ponds:		
8	Emergent, submerged or floating plants (excluding duckweeds) cover at least 50% of the pond area that is less than 3 m deep.	Y
9	The pond surface is no more than 50% shaded by adjacent trees and scrub.	Y
Condition		**Moderate (8/9)**

Condition Assessment Result	**Condition Assessment Score**
Passes 9 of 9 criteria	Good (3)
Passes 6, 7 or 8 of 9 criteria	Moderate (2)
Passes 0, 1, 2, 3, 4 or 5 of 9 criteria	Poor (1)

D6 Condition Assessment Sheet: URBAN Habitat Type

Sparsely vegetated land - Ruderal/ephemeral

Urban – Allotments

Urban – Bioswale

Urban – Rain Garden

Urban – Sustainable Urban Drainage System (SuDS)

BNG Condition Assessment **Criterion Achieved (Y/N)**		**Baseline**			**Proposed**			
		Ruderal	**Allotment**	**Bioswale**	**Allotment**	**Bioswale**	**Rain Garden**	**SUDS**
A	Vegetation structure is varied, providing opportunities for insects, birds and bats to live and breed. A single ecotone (i.e. scrub, grassland, herbs) should not account for more than 80% of the total habitat area.	Y	N	Y	N	Y	Y	Y
B	There is a diverse range of flowering plant species, providing nectar sources for insects. These species may be either native, or non-native but beneficial to wildlife. NB - To achieve GOOD condition, criterion 2 must be satisfied by native species only (rather than non-natives beneficial to wildlife). Note that Biodiverse green roofs are exempt from this requirement, and can include non-native sedums, as set out in footnote 1.	N	Y	N	Y	N	N	N
C	Invasive non-native species (Schedule 9 of WCA) cover less than 5% of total vegetated area. NB - To achieve GOOD condition, criterion 3 must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Y	Y	Y	Y	Y	Y	Y
ADDITIONAL CRITERIA – must be assessed for Bioswale and SuDS habitat types only:								
E1	Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife.	N/A	N/A	Y	N/A	Y	N/A	Y
E2	The vegetation is comprised of plant species suited to wetland or riparian situations.	N/A	N/A	N	N/A	Y	N/A	Y
Condition		**Moderate (2/3)**	**Moderate (2/3)**	**Moderate (3/5)**	**Moderate (2/3)**	**Moderate (4/5)**	**Moderate (2/3)**	**Moderate (4/5)**

Condition Assessment Result	Condition Assessment Score
Passes 3 of 3 core criteria; AND Meets the requirements for good condition within criteria 2 and 3	Good (3)
Passes 2 of 3 core criteria: OR Passes 3 of 3 core criteria but does not meet the requirements for good condition within criteria 2 and 3	Moderate (2)
Passes 0 or 1 of 3 criteria	Poor (1)
Condition Assessment Result for Bioswale and SuDS Habitat Types	**Condition Assessment Score**
Passes all 3 core criteria; AND Meets the requirements for Good condition within criterion C; AND Passes all additional criteria relevant to specific habitat type	Good (3)
Passes 3 or 4 of 5 criteria; OR Passes 5 of 5 criteria but does not meet the requirements for Good condition within criterion C.	Moderate (2)
Passes 2 or fewer of 5 criteria.	Poor (1)

D7 CONDITION ASSESSMENT SHEET: INDIVIDUAL TREES HABITAT TYPE

Individual trees - Urban tree

Individual trees – Rural tree

BNG Condition Assessment **Criterion Achieved (Y/N)**		**Proposed**
1	The tree is a native species (or more than 70% within the block are native species).	Y
2	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Y
3	The tree is mature (or more than 50% within the block are mature).	N
4	There is little or no evidence of an adverse impact on tree health by anthropogenic activities (such as vandalism, herbicide or detrimental agricultural activity). There is no current regular pruning regime so the trees retain >75% of expected canopy for their age range and height.	Y
5	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark	N
6	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y
Condition		**Moderate (4/6)**

Condition Assessment Result	**Condition Assessment Score**
Passes 5 or 6 of 6 criteria	Good (3)
Passes 3 or 4 of 6 criteria	Moderate (2)
Passes 0, 1 or 2 of 6 criteria	Poor (1)

D8 Condition Assessment Sheet: HEGDEROW Habitat Type

Native hedgerow

Native hedgerow - associated with bank or ditch

Native hedgerow with trees

Native species rich hedgerow

Native species rich hedgerow - associated with bank or ditch

Native species rich hedgerow with trees

Native species rich hedgerow with trees - associated with bank or ditch

Attributes and functional groupings (A, B, C, D & E)		**Criteria (the minimum requirements for 'favourable condition'**	**Baseline**											
Core groups - applicable to all hedgerow types			**H1**	**H2**	**H3**	**H4**	**H5**	**H6**	**H7**	**H8**	**H9**	**H10**	**H11a**	**H11b**
A1.	Height	>1.5 m average along length	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
A2.	Width	>1.5 m average along length	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length and No canopy gaps >5 m	Y	Y	N	N	Y	N	Y	Y	Y	Y	Y	Y
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: - measured from outer edge of hedgerow, and - is present on one side of the hedge (at least)	N	N	Y	N	Y	N	N	N	N	N	N	N
C2.	Undesirable perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	N	Y	N	N	N	N	N	Y	Y	N	N	N

D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native and recently introduced species	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Additional group - applicable to hedgerows with trees only														
E1.	Tree age	At least one mature tree per 30m stretch of hedgerow. A mature tree is one that is at least 2/3 expected fully mature height for the species.	Y	N/A	N/A	N/A	Y	N/A	N/A	N/A	Y	N/A	N/A	N/A
E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Y	N/A	N/A	N/A	N	N/A	N/A	N/A	Y	N/A	N/A	N/A
Condition			**Moderate (8/10, 2 failures in C)**	**Good (7/8)**	**Good (6/8)**	**Moderate (5/8, 2 failures in C)**	**Good (8/10)**	**Moderate (5/8, 2 failures in C)**	**Moderate (6/8, 2 failures in C)**	**Good (7/8)**	**Good (9/10)**	**Moderate (6/8, 2 failures in C)**	**Moderate (6/8, 2 failures in C)**	**Moderate (6/8, 2 failures in C)**

Attributes and functional groupings (A, B, C, D & E)		Criteria (the minimum requirements for 'favourable condition'	Proposed (Enhanced & Created										
Core groups - applicable to all hedgerow types			**H6**	**H7**	**H10**	**H11a**	**H11b**	**H12**	**H13**	**H14**	**H15**	**H116**	**H17**
A1.	Height	>1.5 m average along length	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
A2.	Width	>1.5 m average along length	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length and No canopy gaps >5 m	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: - measured from outer edge of hedgerow, and - is present on one side of the hedge (at least)	N	N	N	N	N	N	N	N	N	N	N
C2.	Undesirable perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native and recently introduced species	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities	Y	Y	Y	Y	Y	N	N	N	N	N	N
Condition			**Good (7/8)**	**Good (7/8)**	**Good (7/8)**	**Good (7/8)**	**Good (7/8)**	**Good (6/8)**	**Good (6/8)**	**Good (6/8)**	**Good (6/8)**	**Good (6/8)**	**Good (6/8)**

Condition Categories for Hedgerows without Trees	
Maximum number of attributes that can fail to meet 'favourable condition' criteria	**Metric Score**
No more than 2 failures in total; AND No more than 1 in any functional group	3
No more than 4 failures in total; AND Does not fail both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & C1 = Moderate condition)	2
Fails a total of more than 4 attributes; OR Fails both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & B2 = Poor condition)	1
Condition Categories for Hedgerows with Trees	
Maximum number of attributes that can fail to meet 'favourable condition' criteria	**Metric Score**
No more than 2 failures in total; AND No more than 1 in any functional group	3
No more than 5 failures in total; AND Does not fail both attributes in more than one functional group (e.g. fails attributes A1, A2, B1, C1 & E1 = Moderate condition)	2
Fails a total of more than 5 attributes; OR Fails both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & B2 = Poor condition)	1

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