

ECOLOGICAL IMPACT ASSESSMENT
RADWELL BURY FARM BESS, BALDOCK

carried out by



commissioned by

BALANCE POWER PROJECTS LIMITED

SEPTEMBER 2024



ECOLOGICAL IMPACT ASSESSMENT

RADWELL BURY FARM BESS, BALDOCK

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Project title:	Radwell Bury Farm BESS, Baldock			
Document title:	Ecological Impact Assessment EcIA		Project number:	8575
Client:	Balance Power Projects Limited		Author:	Andrew Ross
Version			Quality Assurance	
Version ref:	Details	Issue date	Reviewed by:	Approved by:
1.0	First Issue	22/07/2024	Mike Hockey BSc MCIEEM	Peter Timms
2.0	Adjustments to layout and RLB.	12/09/2024	Andrew Ross	Andrew Ross
3.0	Minor amendments	17/09/2024	Andrew Ross	Andrew Ross

The information, data and advice which has been prepared and provided is true and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions. This report and its contents remain the property of Clarkson and Woods Ltd. until payment has been made in full.



EXECUTIVE SUMMARY

Clarkson and Woods Ltd. was commissioned by Balance Power Projects Ltd. to carry out an Ecological Impact Assessment at Radwell Bury Farm in Baldock, Hertfordshire (SG7 5EN).

This assessment discusses the likely effects of the development on ecology and biodiversity, including an assessment of Biodiversity Net Gain.

The Site is located in a rural area and is approximately 3.58 hectares (ha), comprising part of an arable field with two hedgerows. Proposals are to install a Battery Energy Storage System (BESS) with associated access roads, attenuation basin, drainage, landscape planting scheme and security fencing.

There are no statutory or non-statutory protected wildlife sites in close proximity to the proposed development, meaning that no impacts are anticipated. The most valuable on-site habitats for biodiversity are the two hedgerows; [REDACTED]

[REDACTED] The development layout has been carefully designed to minimise direct impacts on both these features.

A small 20m section of hedgerow will be removed to facilitate access. However, this will be adequately compensated for by strengthening this hedgerow with additional planting and over 200m of new species-rich hedgerow elsewhere on site.

The report describes some outline measures for safeguarding nesting birds, [REDACTED] slow-worms and other notable fauna that may be at risk during construction.

Landscape design includes the creation of species-rich wildflower grassland, supplementary woodland planting, a landscaped attenuation basin, and over 300m of new species-rich hedgerow planting. This would allow the proposals to deliver a predicted net gain of 44.25% for habitat units and 36.73% for hedgerow units when calculated using the Statutory Biodiversity Metric.

Other good practice control measures to minimise any impacts and maximise biodiversity opportunities include producing a Construction Environmental Management Plan (CEMP), a Biodiversity Mitigation and Enhancement Plan (BMEP) and a Landscape and Environmental Management Plan (LEMP), to be secured by planning condition. Together, these will set out a robust framework for safeguarding valuable habitats and fauna, including the development of a long-term management plan for the new landscape features.



1 INTRODUCTION

- 1.1.1 Clarkson and Woods Ltd. was commissioned by Balance Power Projects Limited to carry out an Ecological Impact Assessment at land proposed to accommodate Radwell Bury Farm BESS, Baldock, hereafter referred to as 'the Site'. The Site is centred at Ordnance Survey grid reference TL 24071 36678, and the nearest post code is SG7 5EN. A site location plan and aerial photo are provided in Figures 1 and 2.
- 1.1.2 This assessment discusses the likely effects of the Proposed Development on Site ecology and biodiversity using baseline information collected as part of a detailed desk study and survey work by Clarkson and Woods Ltd in 2023.
- 1.1.3 This report also provides a quantitative assessment of the likely Biodiversity Net Gain (BNG) the project will achieve post-development, assuming successful implementation of proposed landscaping and ecological management measures.
- 1.1.4 Works carried out include:
- Desk Study (October 2023)
 - Habitat and Protected Species Walkover Survey (9th October 2023)
 - Biodiversity Net Gain Assessment (September 2024)
- 1.1.5 Unless the client indicates to the contrary, information on the presence of species collected during the surveys will be passed to the county biological records centre to augment their records for the area. This is in line with the CIEEM code of professional conduct¹.
- 1.1.6 If no action or development of the Site takes place within twelve months of the date of this report, then the findings of the assessment and supporting surveys should be reviewed. An update of the surveys and/or assessment may be required.

1.2 Report Aims

- 1.2.1 The aims of this report are:
- To establish, as far as possible, the baseline ecological conditions existing on Site at the time of survey and to identify any likely future changes in the baseline conditions up to the point of commencement.
 - To determine likely significant effects resulting from the proposals upon the ecological features identified within the assessment.
 - To assess whether the proposals are likely to be in accordance with relevant nature conservation legislation and planning policies, including Biodiversity Net Gain.
 - To identify where further surveys to establish baseline conditions, inform assessment or develop mitigation or compensatory measures are required.
 - To identify how mitigation or compensation measures will be secured, maintained and monitored.
 - To provide a BNG score for the Site using a quantitative assessment of its baseline and predicted future value in terms of biodiversity units.
 - To identify ecological enhancements to be carried out and how they will be implemented, maintained and monitored.

1.3 Site Description Summary

- 1.3.1 The Site is approximately 3.58 hectares (ha). It is located adjacent Baldock Motorway Services, 2km north of Letchworth Garden City within the North Hertfordshire planning area. The Site forms part of the East Anglian Chalk National Character Area. The surrounding 2km is largely rural; defined by arable land, hedgerows and small pockets of plantation woodland. The most distinct features are the landscape buildings and landscape

¹ Code of Professional Conduct. CIEEM, January 2019.



planting associated with Baldock Services (including Radwell A507 Road Banks Local Wildlife Site) approximately 500m to the west, with the M1 Motorway running north-to-south beyond this.

- 1.3.2 At the time of survey, the Site itself was classified as arable, surrounded by hedgerows with an associated ditch network.

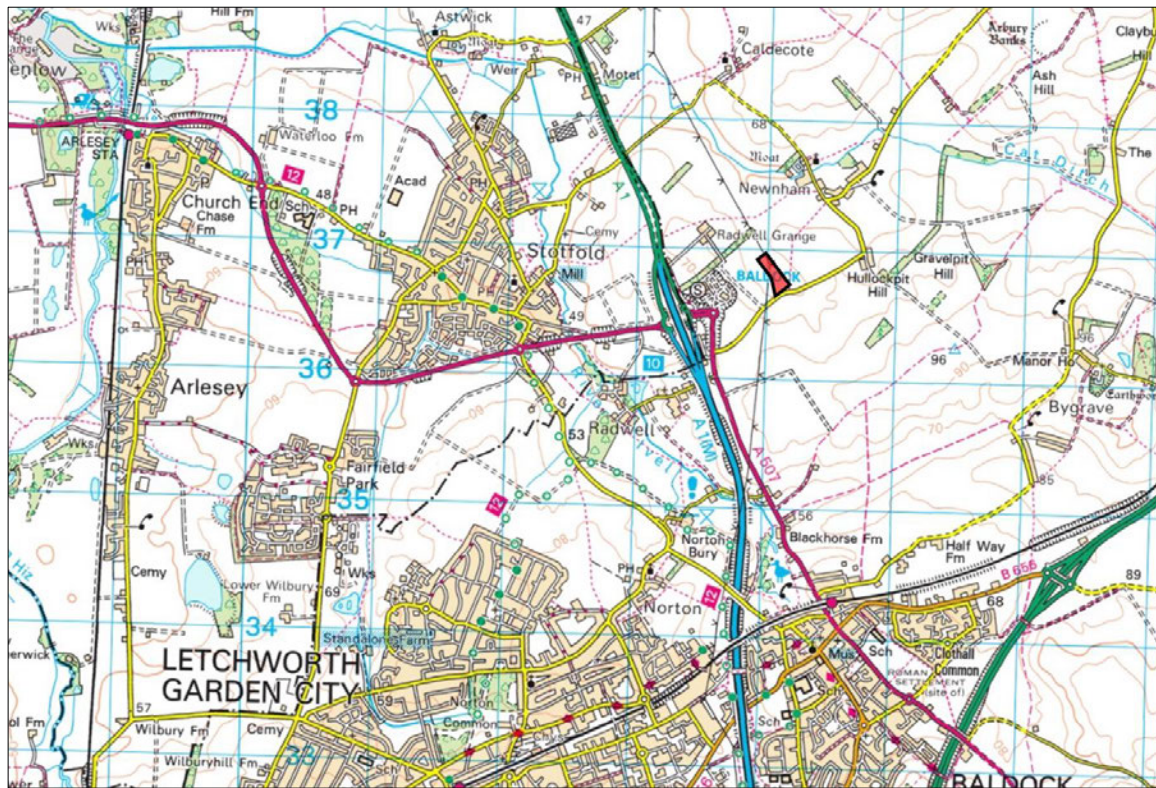


Figure 1: Ordnance Survey Map Showing Location of Site (©2024 Bing Maps)



Figure 2: Aerial Photograph of Site Boundary (©2024 Google)



1.4 Development Proposals

- 1.4.1 Proposals are to install a battery energy storage system (BESS) with associated access roads, attenuation basin, drainage, landscape planting scheme and security fencing as shown in Figures 3 and 4 (drawing no. PR853_SG7 5ES_101 Rev H).
- 1.4.2 Any changes made to scheme design and layout after publishing this report should be issued to Clarkson and Woods Ltd. for review in case ecological impacts or mitigation are affected by such changes.

1.5 Quality Assurance

- 1.5.1 All ecologists employed by Clarkson and Woods are members or pending members of the Chartered Institute of Ecology and Environmental Management (CIEEM) and follow the Institute's Code of Professional Conduct² when undertaking ecological work.
- 1.5.2 The competence of all field surveyors has been assessed by Clarkson and Woods with respect to the CIEEM Competencies for Species Survey (CSS)³.
- 1.5.3 This report has been prepared in accordance with the relevant British Standard: BS42020: 2013 – *Biodiversity: Code of Practice for Planning and Development*⁴. It has been prepared by an experienced ecologist who is a full member of CIEEM. The report has also been subject to a two-stage quality assurance review by appropriately experienced ecologists who are full members of CIEEM.

1.6 Assessment Scope / Consultation

- 1.6.1 In accordance with BS42020⁴, the criteria used to assess impacts follows the approach recommended by CIEEM's guidelines. The assessment focuses on activities that could potentially generate significant ecological effects on Important Ecological Features (IEFs), including any breaches in wildlife legislation.
- 1.6.2 The study area is also known as the Zone of Influence (Zol) for the proposed scheme. This describes the extent over which proposed activities could directly or indirectly influence ecological features. Current EclA guidelines⁵ recommend that all ecological features within the Zol are investigated, including:
- Areas directly within the scheme's land take.
 - Areas that will be temporarily affected during construction operations.
 - Areas likely to be affected by hydrological disruption.
 - Areas where there is a risk of pollution, noise or vibration disturbance during construction and/or operation.
 - Designated sites where construction or operational activities could directly or indirectly undermine the ecological features for which they have been selected.
- 1.6.3 The Zol is variable depending on the nature of ecological features and potential effects. The ecological features considered in this assessment, together with their Zol, are listed in Table 1 below.

² CIEEM (2013). *Code of Professional Conduct*. www.cieem.net/professional-conduct.

³ CIEEM (2013). *Competencies for Species Survey (CSS)*. www.cieem.net/competencies-for-species-survey-css.

⁴ The British Standards Institution (2013). *BS42020: 2013 – Biodiversity: Code of Practice for Planning and Development*. BSI Standards Ltd.



Table 1: Ecological Features Considered and their Associated Zones of Influence

Ecological Feature	Zone of Influence (Zoi)
Statutory designated sites	Special Protection Areas (SPAs), Ramsar Sites and Special Areas of Conservation 5km Special Areas of Conservation (SACs) designated for bats 10km (or within local consultation zones) Sites of Special Scientific Interest (SSSIs) 2km
Non-statutory designated sites including Local Wildlife Sites (LWS)	The Site and land within 1km of the Site boundary
Protected, notable and invasive species records	The Site and land within 1km of the Site boundary
Bats	The Site and land within 2km of the Site boundary
Priority Habitats (also known as Habitats of Principal Importance); hedgerows; reptiles, wild birds, dormouse <i>Muscardinus avellanarius</i> ; [REDACTED]; and other species of conservation concern	The Site and adjacent habitats
Great crested newt <i>Triturus cristatus</i>	On-Site land and ponds within 250m of the Site boundary

- 1.6.4 Details of the legislative protection afforded to those species listed above are provided in Appendix A. Species of Conservation Concern are defined as those appearing in any of the following: Species of Principal Importance in England (SPI) under Section 41 of the Natural Environment and Rural Communities Act (2006) (previously Priority Species or BAP listed species); red or amber-listed birds within the British Trust for Ornithology's Birds of Conservation Concern (2021); and any specific local conservation priority species such as those listed in Red Data Books.

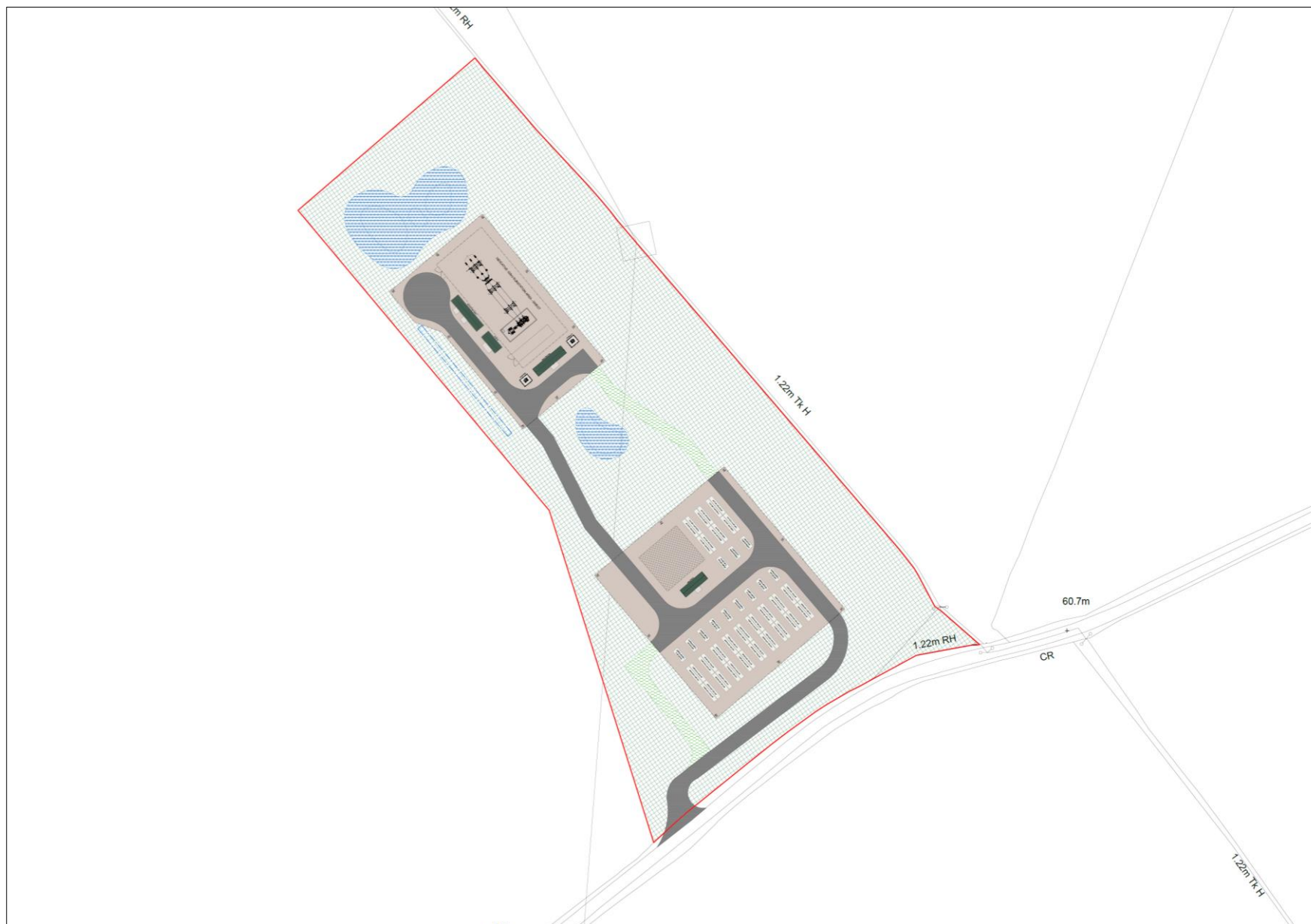


Figure 3: Proposed Plan (drawing no. PR853_SG7 5ES_101 Rev H)



Figure 4: Landscape Plan (drawing no. 3600-01-L-DR-01 Rev F May 2024)



2 BASELINE CONDITIONS

2.1 Introduction

- 2.1.1 This section sets out the results of the Desk Study and ecological field surveys along with an evaluation of their relative importance to inform the Impact Assessment. The methodologies associated with the baseline assessment are summarised with each ecological feature's subheading below.

2.2 Evaluation Methodology

- 2.2.1 Each recorded ecological feature, whether it is a species, a habitat or a site designated for nature conservation, is described in turn in this section to provide the pre-development baseline conditions on Site. Subsequently, an evaluation of each feature's 'ecological importance' is made. The evaluation of ecological importance is informed by the criteria provided within the CIEEM Guidelines for Ecological Impact Assessment (2018)⁵.
- 2.2.2 With due consideration to the criteria, each feature is classified on a geographical scale of ascending importance as follows; Negligible, Site, Local, District, County, National and International. The chosen geographic level of importance is considered that which best represents the scale at which the loss of the Site's area or population of the feature would have the greatest impact. Where sufficient survey information not available to determine the importance of a species or habitat present on the Site, the importance of the receptor is marked as 'uncertain' and based upon the professional judgement of the author together with available relevant desk study information.
- 2.2.3 Once importance has been determined for each feature, those of Local importance or above will be considered Important Ecological Features (IEFs). Non-IEFs will typically not be considered further within the impact assessment. However, where a feature does not qualify as an IEF but is afforded specific legal protection or coverage under a particular legislation or planning policy it will also be assessed to ensure the scheme's legal and policy compliance.

2.3 Desk Study

Methodology

- 2.3.1 Statutory designated sites for nature conservation were identified using the Natural England/DEFRA web-based MAGIC map database (www.MAGIC.gov.uk). This resource was also consulted for records of European Protected Species (EPS) licences issued for EPS mitigation projects within 2km.
- 2.3.2 Both Herts Environmental Records Centre (HERC) and Bedfordshire & Luton Biodiversity and Monitoring Centre were consulted for records of protected species and species of conservation concern within 1km of the Site (extended to 2km for bat records). HERC also provided details of locally-designated and non-statutory sites for nature conservation within 1km of the Site.
- 2.3.3 The North Hertfordshire Local Plan (2011 to 2031) was consulted for details of planning policies relevant to designated sites, protected species, habitats, and general ecological and environmental protection.
- 2.3.4 Ordnance Survey maps (1:25,000) and aerial images of the Site were examined online (bing.com/maps and maps.google.co.uk) to allow a better understanding of the context of the Site and its connections to potentially important habitats, known species records and protected sites.

Limitations

- 2.3.5 No specific limitations to the desk study were encountered.

⁵ CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management. www.cieem.net



- 2.3.6 The data presented within this report constitutes a summary of the data obtained from the local records centres. Should additional detail be required on any of the records described within this report Clarkson and Woods Ltd. should be contacted.
- 2.3.7 It should be noted that the data obtained from within the search area will not constitute a complete record of habitats and species present within the search area. It is therefore possible that protected species may occur within the vicinity of the proposed development site that have not been identified within the desk study.

Desk Study Findings

Designated Sites

Statutory Designated Sites

- 2.3.8 The closest site with statutory designations is Ashwell Springs Site of Special Scientific Interest (SSSI). This is located 4.1km to the northeast of the Site and qualifies as a SSSI because of its freshwater habitats and rare invertebrate communities. However, this site is considered beyond the Zone of Influence (Zol) for the scheme, so was scoped-out from further assessment. The Site does not lie within the Impact Risk Zone (IRZ) for the SSSI

Local and Non-statutory Designated Sites

- 2.3.9 One local or non-statutory designated site for nature conservation was identified within the search area and summarised in Table 2 and Figure 5 below. However, this site is considered beyond the Zol for the scheme, so was scoped-out from further assessment.

Table 2: Summary of Local and Non-statutory Designated Sites for Nature Conservation

Site Name	Distance and Direction from Site	Reason for Designation	Importance
Radwell (A507) Road Banks (Local Wildlife Site)	400m to the southwest of Site.	HERC data search indicates the site supports areas of species-rich calcareous grassland with records of bee orchid (<i>Ophrys apifera</i>), pyramidal orchid (<i>Anacamptis pyramidalis</i>) and common broomrape (<i>Orobancha minor</i>).	County

Hertfordshire Ecological Network

- 2.3.10 Some adjacent areas (approximately 250m to the west of Site) are also listed as part of a Local Nature Partnership (LNP) project, a county-wide network of sites led by Herts & Middlesex Wildlife Trust. This is mentioned within Policy SP9 of North Hertfordshire's Local Plan 2011 – 2031.
- 2.3.11 The on-Site arable habitat is so distinct and spatially separated from the above Local Wildlife Sites and Ecological Network, they are considered beyond the Zol for the proposed scheme and not considered further as part of this impact assessment.

Planning Policy

- 2.3.12 The following policies (Table 3) have been identified within the North Hertfordshire Local Plan (2011 to 2031), which are considered relevant to the Site.



Table 3: Summary of Relevant Policies Within the North Hertfordshire Local Plan

Policy	Key Details
Policy SP12: Green infrastructure, landscape and biodiversity	The policy seeks to accommodate sustainable development by protecting designated and non-designate wildlife sites, biodiversity networks, protected species and valuable habitats.
Policy NE1: Strategic green infrastructure	This policy relates to the creation and protection of existing green infrastructure networks.
Policy NE2: Landscape	This policy seeks to support sustainable development that protects the area's landscape and natural character area.
Policy NE4: Biodiversity and geological sites	The policy makes clear that planning permission will only be granted for developments that appropriately protect, enhance and manage the biodiversity features listed in Policy SP12, in strict accordance with the mitigation hierarchy.
Developer Contributions Supplementary Planning Document (Jan 2023)	Applicants will be required to demonstrate to the Council that all methods of avoidance have been fully explored and all new development should seek to deliver BNG on site within the red line application boundary. Whilst the Local Plan does not specify a target for BNG, the Council are taking a pro-active and masterplan led approach to strongly encouraging new developments to achieve a net gain for biodiversity of at least 10%. Preliminary Ecological Appraisals and Ecological Impact Assessments are required to contain a specific section entitled 'Biodiversity Net Gain' which must clearly show how the site has been assessed using the Biodiversity Metric (latest version). This will demonstrate the baseline habitat value of the site (pre-development) and the post development habitat value.

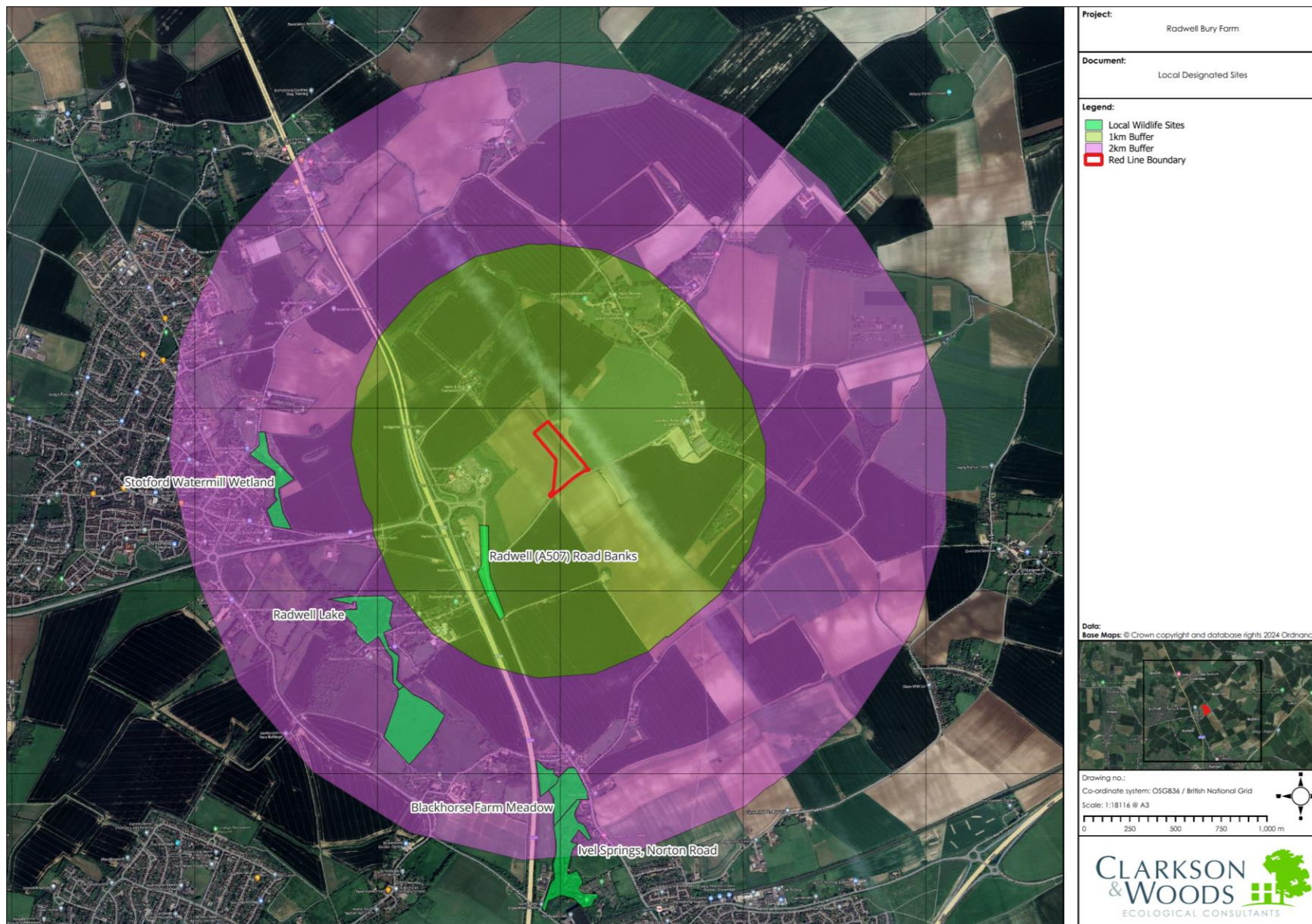


Figure 5: Local Sites Map



2.4 Habitat Assessment and Biodiversity Net Gain

Habitat Survey Methodology

- 2.4.1 Habitats were classified and their condition assessed in accordance with standard UK Habitat classification⁶ (UKHab) and the Statutory BNG Metric. The survey was completed by Andrew Ross, MCIEEM. Andrew has 15 years' experience undertaking ecological surveys and has a BSc in relevant subjects.
- 2.4.2 Botanical names follow Stace (1997)⁷ for higher plants and Edwards (1999)⁸ for bryophytes.
- 2.4.3 Results are included in map form in Figure 6 below and Target Notes in Table 4. Habitat condition assessments are provided in Appendix B. These describe habitats not readily conforming to recognised types and the Site's suitability for protected and notable fauna.

BNG Methodology

- 2.4.4 BNG uses habitat features as a proxy for measuring biodiversity. This allows net gain to be quantified by comparing the Site's baseline value to its anticipated future condition.
- 2.4.5 This assessment follows the guidance as set out within current best practice guidelines^{9 10 11}.
- 2.4.6 Defra's Statutory Biodiversity Metric (referred to hereafter as 'the Metric') has been used to complete the BNG calculation, with mapping carried out using QGIS. Both have been issued separately alongside this EclA report and available upon request.
- 2.4.7 Condition sheets have been used to assess habitats within this report and are provided in Appendix B. Full justifications for habitat types and condition have been provided within this report rather than added to the Metric.

Limitations

- 2.4.8 No significant limitations were encountered during the assessment and all habitats on Site were broadly identified and categorised with confidence. It must be noted that the habitat assessment is not intended to confirm the presence or absence of all plant species on Site. However, it does provide a comprehensive assessment of habitat types and dominant species at the time of the survey and highlights where further survey effort would be required.
- 2.4.9 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.

Arable

Field Survey Results

- 2.4.10 Most of the development footprint (i.e. 99%) comprised a smaller section of a larger arable field. Therefore, most of this area did not have any formal boundaries. The crop was winter-sown wheat at the time of survey but had recently been ploughed and, from dialogue with the client, is understood to usually be managed on rotation with a potato crop.
- 2.4.11 Field 1 is consistent with 'Other Cereal Crops (C1c7)' using UKHab Classification. The Metric fixes this habitat's condition as 'N/A'.

Protected Species Suitability

- 2.4.12 The arable field is suitable for small numbers of widespread ground-nesting birds such as skylark *Alauda Arvensis* or meadow pipit *Anthus pratensis* (See 'Wild Birds' sub-heading below).

⁶ UK Habitat Classification User Manual Version 2.0 (UKHab, 2023)

⁷ Stace, C. (1997). *New Flora of the British Isles Second Edition*. Cambridge University Press

⁸ Edwards, S.R. (1999). *English Names for British Bryophytes*. BBS, Cardiff

⁹ The Statutory Metric User Guide (Defra, February 2024)

¹⁰ The British Standards Institution (2021). BS8683: 2020 – Process for Designing and Implementing Biodiversity Net Gain. BSI Standards Ltd.

¹¹ Biodiversity Net Gain: Good Practice Principles for Development (CIEEM, CIRA, IEMA 2016)

Evaluation

- 2.4.13 This habitat is *not* a Habitat of Principal Importance (HPI) in England under S41 of the NERC Act (also known as Priority Habitats).
- 2.4.14 Apart from some suitability for notable fauna, arable fields are not inherently valuable as a habitat and achieve a Low BNG distinctiveness score.
- 2.4.15 The habitat is considered to have Negligible importance.



Photo 1: Field 1 – arable crop, recently ploughed

Mixed Scrub

Field Survey Results

- 2.4.16 A small area of overgrown scrub (<1% of the Site area and <0.02ha in size) was recorded between Hedgerows 1 and 2 in the southeast corner of Field 1 (see TN2, Figure 6). Species comprising blackthorn and hawthorn with occasional field maple and ash.
- 2.4.17 This habitat is consistent with 'h3h Mixed scrub' using UKHab 2.0 and was assessed as being in Moderate condition (see Appendix B).
- 2.4.18 This habitat is not a HPI.

Protected Species Suitability

- 2.4.19 The habitat has some suitability for nesting birds, hazel dormouse, widespread reptiles and amphibians, including great crested newt (GCN).

Evaluation

- 2.4.20 This habitat is not a HPI but achieves a Moderate BNG distinctiveness score. However, its small size means it has little intrinsic ecological value. When assessed separately from its suitability for several notable fauna (see below), the habitat is considered to have Negligible importance.

Hedgerows

Field Survey Results

- 2.4.21 Two hedgerows were recorded on Site or directly adjacent to it, with Hedgerow 1 along the northeast boundary (H1) and Hedgerow 2 along the southeast (H2). Both were consistent with 'h2a Native hedgerow' using UKHab 2.0.



2.4.22 Both were associated with trees and seasonally wet ditches that were both dry at the time of survey. Both were assessed as being in Moderate condition. Dominant woody species included blackthorn *Prunus spinosa* and hawthorn *Crataegus monogyna*, with less frequent ash *Fraxinus excelsior*, elm *Ulmus* sp, field maple *Acer campestre* and apple *Malus* sp. Some key differences are as follows:

- H1 is species-rich and reasonably dense with occasional gaps in canopy.
- H2 is species-poor, over-trimmed and more gappy at hedgerow bases and in canopy.

Protected Species Suitability

2.4.23 Both hedgerows are suitable for nesting birds, hazel dormouse, bats in flight, widespread reptiles and amphibians, including great crested newt (GCN).

2.4.24 [REDACTED]

Evaluation

2.4.25 All native hedgerows, regardless of quality, are HPIs / Priority Habitats and provide local ecological connectivity to the surrounding countryside. In terms of BNG, H1 is a linear habitat of 'High' distinctiveness and H2 has 'Moderate' distinctiveness. Both hedgerows are considered to be of Local importance.



Photo 2: Hedgerow 2

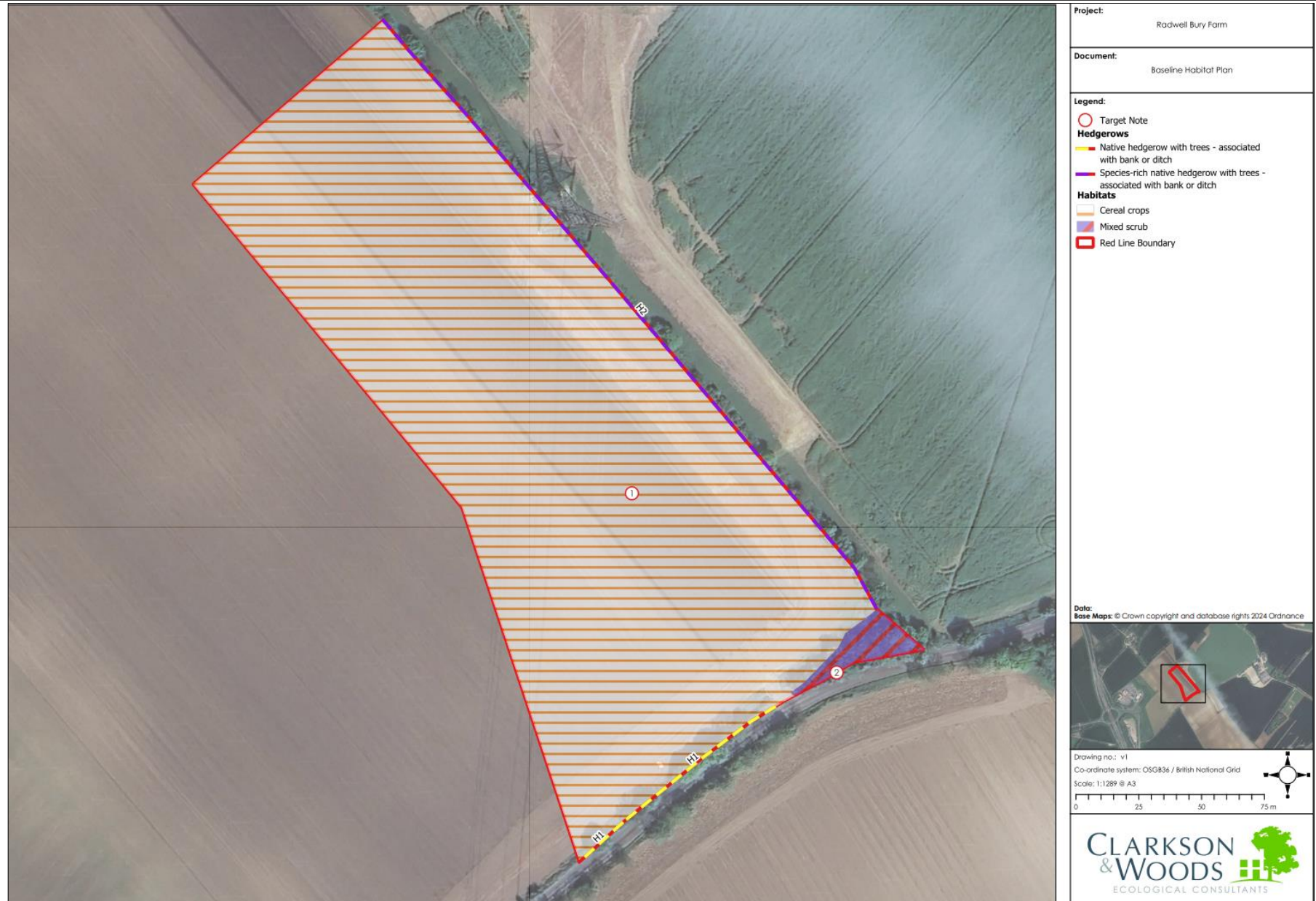


Figure 6 – Baseline Habitat Map



Figure 7 – Proposed Habitats Plan

Table 4: Target Notes relating to Figure 6

Reference	Description
Field 1	Arable field of winter-sown wheat on rotation with potato crop. Had recently been ploughed at time of survey. The BNG Metric does not associate this habitat type with a condition, fixing it as 'N/A'.
Hedgerow 1	Species-rich native hedgerow with trees (associated with ditch). Assessed as being in 'Good' condition using the Metric.
Hedgerow 2	Native hedgerow with trees (associated with bank). Assessed as being in 'Moderate' condition using the BNG Metric.
TN1	Area of disturbed ground at southeast edge of arable field (Field 1) with ground protection panelling to support vehicle movements. Necessary for National Grid work associated with electricity pylons.
TN2	Small area of Mixed Scrub assessed as Moderate condition, mostly comprising blackthorn and hawthorn with occasional field maple and ash.

2.5 Protected Species Survey and Species of Conservation Concern

A horizontal bar chart consisting of 10 groups of bars. Each group is preceded by a small black square. The bars within each group vary in length, representing different values. The groups are arranged vertically, and the bars are black on a white background.

Group	Bar 1 Length (approx. %)	Bar 2 Length (approx. %)	Bar 3 Length (approx. %)	Bar 4 Length (approx. %)
1	10	20		
2	100	100	40	
3	100	100	85	
4	10			
5	100	100	60	
6	100			
7	100	80		
8	100	100	75	
9	100	100	100	65
10	100	100	100	10



Bats

Methodology

- 2.5.8 The assessment of the suitability of the Site for foraging and roosting bats was based on current guidance set out by the Bat Conservation Trust¹³.
- 2.5.9 *Trees*: an inspection of trees on Site was carried out from the ground, using binoculars, to record any signs of use of the tree by bat species. Potential Roosting Features (PRFs) were appraised and recorded.
- 2.5.10 *Habitat*: the habitats within the Site were appraised for their suitability for use by foraging and commuting bats. In particular, the connectivity of the habitats on Site to those lying beyond was taken into account.

Limitations

- 2.5.11 Not all features in trees suitable for use by bats are visible from the ground and there can be no external evidence of use of features by bats; consequently, it is only possible to make a best effort when carrying out such a survey.

Desk Study Information

- 2.5.12 Numerous flight records and small numbers of roosts were identified within 2km. These included the species: common pipistrelle *Pipistrellus pipistrellus*; soprano pipistrelle *Pipistrellus pygmaeus*; brown long-eared *Plecotus auratus*; noctule *Nyctalus noctule*; and serotine *Eptesicus serotinus*.

Field Survey Results

Habitat

- 2.5.13 The adjacent hedgerow network is suitable for commuting and foraging habitat for bats linking the Site to the wider landscape. The arable field is sub-optimal for foraging or commuting but is directly connected to more suitable adjacent habitat. Due to its small size and absence of optimal habitat, the Site was classified as having a 'Low' level of suitability for commuting and foraging bats in accordance with the BCT survey guidelines.

Trees

- 2.5.14 Although several mature trees in the wider landscape were observed to be suitable for roosting bats, there were no mature trees within the Red Line Boundary (RLB) (i.e. associated with Hedgerows 1 and 2) considered suitable for roosting bats, all being too small, thin, immature, or having growth habits too shrub-like to have developed suitable features.

Evaluation

- 2.5.15 Considering the small scale of development and protection of most suitable features, a comprehensive bat activity assessment would not be reasonable or proportionate in this instance. However, it is likely that bat flight activity on Site would justify a Local level of importance.

Dormouse

Methodology

- 2.5.16 Any hedgerows, scrub and woodlands were assessed during the walkover for their suitability to support dormice *Muscardinus avellanarius*. Particular consideration was paid to the abundance of food sources within them, density for nesting and overnight shelter and the strength of connectivity to other suitable habitats leading off site. In addition, any direct sightings, nests or feeding signs during the site visit were also recorded.

Limitations

- 2.5.17 No specific limitations to this part of the walkover were identified.

¹³ Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4thedn). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1.



Desk Study Information

- 2.5.18 The desk study did not identify any local dormouse records within 2km of the Site.

Field Survey Results

- 2.5.19 The on-Site hedgerows have some suitability for dormouse. Such suitability is considered to be quite low/ sub-optimal due to the Site's poor connectivity to larger areas of mature woodland.

Evaluation

- 2.5.20 Since the site is within the range for hazel dormouse and habitat is somewhat suitable, this species cannot be fully scoped out without more detailed survey effort. However, such survey effort is both labour intensive and time consuming, so would not be reasonable or proportionate in this instance. Therefore, their presence has been assumed on a precautionary basis, with the Site classified as being of Local level importance.

Great Crested Newt

Methods

- 2.5.21 All waterbodies within 250m of the Site were identified using Ordnance Survey maps and aerial imagery. Terrestrial habitats were also assessed for their suitability for foraging and sheltering great crested newts.

Limitations

- 2.5.22 No specific limitations to this part of the walkover were identified.

Desk Study Information

- 2.5.23 The desk study did not identify any ponds within 250m of the RLB. However, a single pond is present within the parking area of Baldock Services approximately 495m to the west.
- 2.5.24 HERC's record search reported several GCN records 2.75km to the southwest in 2021. Although the A1 is likely to be a significant ecological barrier to GCN dispersal from this location, it does demonstrate the presence of this species in the local area.
- 2.5.25 The Site is within the 'Green' Risk Zone for Natural England's GCN District Licensing for Hertfordshire, meaning they are sparsely distributed in the local area and less likely to contain important connectivity pathways.

Field Survey Results

- 2.5.26 Most of the Site is of low quality for GCN, but the hedgerows and scrub may be used by GCN for shelter and foraging, and they may disperse over the arable land at night if they were breeding in ponds nearby.

Evaluation

- 2.5.27 Considering the absence of nearby ponds, sub-optimal nature and terrestrial habitat and presence within Natural England's lower-risk 'Green' zone, GCN are considered absent from Site and not considered further in this assessment.

Reptiles

Methods

- 2.5.28 Features on Site were assessed for their potential to provide suitable habitats for use by reptile species. These include rough, tussocky grassland, scrub, disturbed land or refugia such as wood piles, rubble or compost heaps. Where present, suitable existing refugia were inspected for sheltering reptiles, and the ground was scanned whilst walking to look for basking species.

Limitations

- 2.5.29 No specific limitations to this part of the walkover were identified.

Desk Study Information

- 2.5.30 The data search returned 2 records of grass snake *Natrix helvetica* 1.4km to the north of the Site.



Field Survey Results

- 2.5.31 Areas of cultivated land are considered unsuitable for these species. However, the hedgerows and thin sections of adjacent herbaceous vegetation have some suitability for widespread reptiles such as slow-worm *Anguis fragilis* and grass snake.

Evaluation

- 2.5.32 Further survey and assessment for reptiles is not considered proportionate in this instance, as the extent of suitable habitat is very small although well-connected to the wider area.
- 2.5.33 The presence of grass snake and slow-worm have been assumed in these discrete areas of the Site associated with the hedgerows, with the Site classified as being of Site importance.

Wild Birds

Methodology

- 2.5.34 Vegetation was surveyed for signs of use by nesting birds and any birds seen or heard during the survey were noted. The Site's potential to support bird species of particular conservation concern (i.e. Schedule 1, NERC S41 and Red/ Amber List species) was assessed, taking into consideration the bird species assemblage observed during the survey, the habitats present on and around the Site, the context of the Site in the wider landscape and the results of the desk study.

Limitations

- 2.5.35 No specific limitations to this part of the walkover were identified.

Desk Study Information

- 2.5.36 HERC and BRMC together reported the presence of several birds recorded locally and reasonably likely to use the Site. These included species such as song thrush *Turdus philomelos*, fieldfare *Turdus pilaris*; yellowhammer *Emberiza citrinella*; and skylark.

Field Survey Results

- 2.5.37 The arable field has some suitability for widespread ground-nesting birds such as skylark or meadow pipit. The surrounding hedgerows are also suitable for nesting birds.

Evaluation

- 2.5.38 Considering the low density of suitable nesting habitat on Site, wild birds are considered to be of Site importance only, largely based on the merit of the surrounding hedgerow network for nesting opportunities.

Invertebrates

Methods

- 2.5.39 Any notable invertebrates identified during the survey were recorded. The habitat was also assessed for its suitability for notable invertebrates, including the presence of specific species known to be foodplants or larval plants or habitats which may be favoured by invertebrates (such as bare ground, deadwood or grass tussocks). The habitat structure was also considered, such as mosaics, brownfield or unmanaged areas.

Limitations

- 2.5.40 No specific limitations to this part of the walkover were identified.

Desk Study Information

- 2.5.41 The Site is not within a Buglife B-lines area.
- 2.5.42 The data searches reported the following HPI / Priority butterfly species reported within 2km since 2019:
- White-letter Hairstreak *Satyrrium w-album*
 - Small Blue *Cupido minimus*
 - Small Heath *Coenonympha pamphilus pamphilus*



Field Survey Results

- 2.5.43 On-Site habitats were largely assessed as being sub-optimal for invertebrates due to the large proportion of arable land. The most suitable habitats are the two hedgerows. Since this habitat is being retained, the requirement for detailed invertebrate surveys was considered disproportionate and therefore not undertaken.

Evaluation

- 2.5.44 The two hedgerows with dry ditches are likely to support a moderate assemblage of invertebrate fauna. Invertebrates are considered to be of Site importance.

Other Protected Species and Species of Conservation Concern

Methods

- 2.5.45 Invasive species, such as Japanese knotweed *Fallopia japonica* and Himalayan Balsam *Impatiens glandulifera* were searched for and recorded where present during survey work.
- 2.5.46 Field signs indicating the presence of other species of conservation concern, such as common toad *Bufo bufo*, hares *Lepus europaeus*, polecat *Mustela putorius*, harvest mice *Micromys minutus*, hedgehogs *Erinaceus europaeus* (Species of Principal Importance under the NERC Act (2006)) were recorded where present. Habitats were also assessed for their potential to support such species.

Limitations

- 2.5.47 No specific limitations to this part of the walkover were identified.

Desk Study Information

- 2.5.48 HERC and BRMC together reported the presence of common toad *Bufo bufo*, brown hare, harvest mice and hedgehogs within 2km.

Field Survey Results

- 2.5.49 Considering the desk study results and field results, the Site is considered suitable for brown hare and hedgehog. A single brown hare was also recorded during the field survey approximately 400m to the northwest.
- 2.5.50 The following notable species were scoped out from further detailed consideration at this stage of the assessment, due to the absence of suitable habitat:
- Otter *Lutra lutra*
 - Water vole *Arvicola amphibius*
 - Common toad
 - Harvest mouse

Evaluation

- 2.5.51 Brown hare and hedgehog are considered to be of Site importance.



2.6 Summary of Ecological Importance

2.6.1 Table 5 below gives all the identified ecological features on Site and their individual assessment of importance. Those coloured green are considered to be Important Ecological Features and will form the basis of the Assessment of Effects in Section 3. Those coloured yellow will be included on the basis of their specific legal protection or applicable planning policies.

Table 5: Summary of Ecological Importance

Feature	Importance
Designated Sites	
Ashwell Springs (SSSI)	National (scoped out)
Radwell (A507) Road Banks (Local Wildlife Site)	County
Habitats	
Arable	Negligible
Mixed Scrub	Negligible
Hedgerows	Local
Species	
██████	██
Bats (in flight)	Local
Dormouse	Local
Great Crested Newt	Not Important (absent)
Reptiles	Site
Wild Birds	Site
Invertebrates	Site
Brown Hare	Site
European Hedgehog	Site
Otter	Not Important (absent)
Water Vole	Not Important (absent)
Common Toad	Not Important (absent)
Harvest Mouse	Not Important (absent)



3 ASSESSMENT OF EFFECTS

3.1 Methodology

- 3.1.1 Continuing from the valuation of Important Ecological Features (IEFs), this section lists each IEF in turn together with a characterisation of any potential impacts upon them likely to arise from the proposals. This takes the following into consideration:
- Embedded avoidance measures inherent in the designed scheme.
 - Good-practice site management control measure for avoiding typical effects from construction and operation.
- 3.1.2 Following the assessment of effects, any additional mitigation measures are set out to reduce any likely impacts that were identified to acceptable levels. This section also sets out the mechanism(s) through which mitigation will be secured.
- 3.1.3 Residual effects, being those effects which would likely still arise despite any avoidance measures or agreed mitigation efforts, are subsequently discussed. Residual effects are determined to be either significant or not significant and any significant residual effects are given a geographical scale at which they might be felt. This assessment methodology is in accordance with that set out in the CIEEM Guidelines for Ecological Impact Assessment, 2018.
- 3.1.4 Where residual effects are identified, compensatory measures may be proposed to make up for the loss or permanent damage to an IEF, as far as possible. Monitoring or management schemes which may be necessary to ensure the long-term achievement of all intended mitigation and compensation are discussed.
- 3.1.5 Where potential for cumulative impacts upon IEFs in association with other proposed or ongoing local development are identified these are described as appropriate for the affected IEF. The Zone of Influence for each IEF, together with their level of ecological importance will be of relevance when considering the scope of a cumulative impact assessment.
- 3.1.6 Ecological enhancement measures that will be incorporated into the development are given in line with the National Planning Policy Framework.

3.2 Summary of Development Proposals and Sources Potential of Impacts

- 3.2.1 This assessment has been based on drawings 'PR853_SG7 5ES_101 Rev F 24/06/2024' and '3600-01-I-DR-01 Rev B May 2024', as described in Section 1.4 and shown in Figures 3 and 4.
- 3.2.2 Any changes made to scheme design and layout after publishing this report should be issued to Clarkson and Woods Ltd. for review in case ecological impacts or mitigation is affected by such changes.

3.3 Scheme-wide Avoidance and Mitigation Measures

- 3.3.1 The following measures have been factored into the assessment of effects to ensure that any identified impacts are 'likely'. These are described in further detail under individual sub-headings for IEFs.

Inherent Design Measures

- 3.3.2 The layout has been designed to minimise direct impacts on IEFs. A 30m ecological buffer has been integrated between Hedgerow 1 and the built footprint to safeguard this feature [REDACTED]. It will however be necessary to breach a small part of this buffer to allow for drainage work associated with the new attenuation pond during construction. Habitat adjacent the hedgerow will be landscaped following construction, so no long-term impacts are anticipated. [REDACTED]. [REDACTED] A 20m section of H2 will be removed to facilitate access, but this has been kept to a minimum and the remainder of this hedgerow will be enhanced with additional planting.

Good Practice Control Measures

- 3.3.3 A Construction Environmental Management Plan (CEMP) will describe measures to avoid, minimise or mitigate any construction-phase impacts on the environment. The CEMP is typically secured by a planning



condition and prepared by the principal contractor. It will identify any risks to nearby wet ditches, identify potential pollution pathways, and describe mitigation measures to be employed to minimise dust and run-off. Best practice methodology with adequate contingency planning will be formalised and incorporated into the CEMP to reduce the risk of a pollution event occurring.

- 3.3.4 A Biodiversity Mitigation and Enhancement Plan (BMEP) will describe measures to avoid, minimise or mitigate construction-phase impacts on important ecological features which are typically outside the scope of a typical CEMP. The BMEP will include additional measures, including 'biodiversity protection zones' for the hedgerows, timing constraints for nesting birds. [REDACTED]
[REDACTED] The document will also detail biodiversity enhancement measures to be secured and implemented during the construction phase. The BMEP can be secured by a planning condition.
- 3.3.5 A Landscape and Environmental Management Plan (LEMP) will be prepared for the operational site to cover how retained and newly created habitats are managed to maximise their biodiversity value. The LEMP will also set out any measures necessary to ensure protected species are appropriately accommodated within the operational Site. This is typically secured by planning condition.

Other New Habitat Creation/ Enhancement

Woodland

- 3.3.6 Small patches of broadleaf woodland will be planted alongside the eastern boundary of the new battery site as a screening measure. Species will include field maple *Acer campestre*, alder *Alnus glutinosa*, silver birch *Betula pendula*, hazel *Corylus avellana*, hawthorn *Crataegus monogyna* and holly *Ilex aquifolium*.

Hedgerows

- 3.3.7 In total, at least 316m of species-rich hedgerow will be planted, located along the western boundary. Hedgerow planting will comprise native species, including: field maple; hazel; hawthorn; holly; wild privet *Ligustrum vulgare*; honeysuckle *Lonicera periclymenum*; blackthorn; dog rose *Rosa canina*; and guelder-rose *Viburnum opulus*. The existing gappy H2 along the south will be reinforced with additional planting of these species as an enhancement.

Grassland Planting

- 3.3.8 Approximately 1.6 ha of the Site will be seeded with a wildflower mix of EM5 Meadow Mixture for Loamy Soils by Emorsgate Seeds (or similar). For the purposes of BNG, this has been categorised as Modified Grassland in 'Good' condition, although it may exceed this valuation if it were monitored and managed appropriately to maximise biodiversity. Detailed prescriptions to achieve this would need to be set out within the LEMP.

Attenuation Pond

- 3.3.9 The attenuation pond is likely to be seasonally wet, so will be seeded with the EM8 Meadow Mixture for Wetlands by Emorsgate Seeds. This is composed of 20% native wildflowers and 80% slow growing grasses. Again, detailed prescriptions would need to be set out within the LEMP.

3.4 Biodiversity Net Gain Assessment

- 3.4.1 As part of the BNG assessment, the value of existing habitats was calculated using the Baseline Habitats map (Figure 6), descriptions in this report and condition assessments (Appendix B). The value of proposed habitats was calculated using the latest landscape proposals.



Table 6: Baseline Habitats

UK Hab Category	Condition	Surface Area/ Length within RLB	Area/ Length Lost to Development or Land Use Change
Other Cereal Crops (C1c7)	Condition Assessment N/A	3.5ha	3.5ha
Mixed scrub	Moderate	0.05ha	None
H1 - Species-rich native hedgerow with trees	Moderate	306m	None
H2 - Native hedgerow with trees	Moderate	99m	23m
Total	Non-linear habitats	3.55ha	3.5ha
	Hedgerows only	405m	21m

Baseline Assumptions

- 3.4.2 Since Field 1 is subject to arable rotation, for the purposes of this calculation it was taken to be the habitat present during the survey in 2023.

Table 7: Post-development habitats – Newly Created

Description in Development Plan	BNG Category	Target Condition	Surface Area/ Length within RLB
Access roads and site surface	Developed land, sealed surface	N/A	1.1ha
Supplementary Woodland	Other woodland - broadleaved	Moderate	0.31ha
Proposed planting scheme	Modified grassland	Good	1.6ha
Attenuation basin	Sustainable urban drainage system (SUDS)	Moderate	0.41ha
New hedgerows	Species-rich native hedgerows	Moderate	316m
Total		Non-linear habitats	3.5ha
		Hedgerows only	316m

Table 8: Post-development habitats – retained and enhanced

Description in Development Plan	Condition Notes	Surface Area/ Length within RLB
Mixed scrub	Retained as Moderate	0.05ha
H1 - Species-rich native hedgerow with trees	Retained as Moderate	306m
H2 - Native hedgerow with trees	Enhanced from Moderate to Good	76m

Post-development Assumptions

- 3.4.3 The attenuation basin has been assumed to be dry for most of the year and only inundated with water at times of seasonal flooding.



- 3.2.3 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. Target conditions and associated condition assessments are provided in Appendix B, where a column specific to target condition has been added.

Final Metric Calculation

- 3.4.4 Information in the Metric directly relates to the Habitat Baseline Plan and the Proposed Habitats Plan (Figures 6 and 7 respectively). The completed Metric spreadsheet will be submitted separately.
- 3.4.5 The proposed development will result in a total net increase of 44.25% Habitat Units and 36.73% Hedgerow Units. This represents a significant net gain of biodiversity units. The Headline Results are provided in Appendix C.

3.5 Designated Sites

Radwell (A507) Road Banks LWS

Potential Impacts

- 3.5.1 The Site is considered to be of sufficient distance (at least 400m away) from this designated site that direct impacts (e.g. habitat loss, disturbance etc.) will not occur. However, the LWS borders the A507 road which is expected to be the main route for construction site traffic approaching and leaving the Site.
- 3.5.2 There is therefore the potential for some dust and soil generated from Site construction activities to be deposited on to the roadside verges, which could have detrimental impacts on the botanical flora of the LWS, causing degradation of the habitats within. It should also be noted that a certain amount of dust and litter deposition would already occur via day to day traffic travelling along this road.

Mitigation, Compensation, Enhancement and Monitoring

- 3.5.3 The CEMP prepared for the Site will prescribe measures to minimise the potential for dust and spoil deposition on surrounding road verges. This will include how dust-generating activities will be minimised, ensuring stockpiles of spoil and site materials will be stored away from the main site entrance, and ensuring loads leaving site are securely covered. The wheels of all vehicles will be checked on leaving the site, and if necessary, will be cleaned by jet wash within a designated washing area.

Residual Effects

- 3.5.4 So long as good-practice measures are adopted to prevent dust deposition on habitats present along construction traffic routes, it is considered highly unlikely that the proposed development will have any significant impacts, either directly or indirectly, on the non-statutory designated site identified during the desk study. Residual effects will therefore be Neutral and Not Significant.

3.6 Habitats

Hedgerows

Potential Impacts

- 3.6.1 A small 23m section of Hedgerow 2 will be removed to facilitate access and the new road layout as part of the construction phase. This will cause some fragmentation and a small impact on the hedgerow network on Site. As described in Section 3.3 above, this loss will be compensated by enhancing this hedgerow with additional planting and management, as well as the planting of 316m of new hedgerow on Site.
- 3.6.2 No impacts are anticipated to the remainder of hedgerows. Scheme design has largely avoided hedgerow removal by locating the built area away from hedgerow areas. All existing hedgerows will be safeguarded throughout construction and maintained / enhanced as part of long-term management.
- 3.6.3 Correct implementation of the CEMP is likely to prevent physical damage to retained hedgerows by plant machinery, run-off and dust deposition during the construction phase.
- 3.6.4 Hedgerow planting and improved management during the operation phase may result in beneficial impacts on the Site hedgerow network.

- 3.6.5 The cessation of intensive arable farming practices, including spraying crops with pesticides & herbicides, is also likely to be of some benefit to hedgerow habitats, particularly the ground flora at hedgerow bases.

Mitigation, Compensation, Enhancement and Monitoring

- 3.6.6 As described above, measures will include implementation of a CEMP as part of standard good-practice, protection of retained hedgerows, planting additional hedgerows and enhancing Hedgerow 2 with additional planting. All hedgerows will be subjected to a long-term management plan as part of a LEMP.

Residual Effects

- 3.6.7 Overall, the residual effect on hedgerows is considered to be a Significant Beneficial impact at a Site level.

3.7 Protected Species and Species of Conservation Concern

10/10/2016

████████████████████

■■■■■■■■■■



3.7.9 [REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]

Bats (in flight)

3.7.12 No roosting features in trees were identified on Site. Although a formal bat activity assessment has not been completed, it is likely that the on-Site hedgerows are used by a modest assembly of species for feeding and moving through the landscape.

Potential Impacts

3.7.13 No impacts are anticipated. Night-time artificial lighting is not anticipated during construction, except temporarily during the winter months when bats are typically in hibernation. No artificial lighting is required for site operation. Scheme design has also retained the features likely to be of highest importance for bats (i.e. the hedgerows).

3.7.14 The replacement of intensive arable land with woodland, hedgerow and grassland planting is likely to have a beneficial effect on local bat populations.

Mitigation, Compensation, Enhancement and Monitoring

3.7.15 No specific mitigation measures are proposed.

3.7.16 The new planting enhancements described above are likely to attract a larger volume of more diverse flying insects, which would provide a modest benefit for local bat populations.

Residual Effects

3.7.17 Residual effects have been classified as Beneficial and Significant at the Site level for bats.

Dormouse

3.7.18 Although dormice are not anticipated on Site, precautionary measures have been set out in the absence of detailed survey information.

Potential Impacts

3.7.19 A small 23m section of hedgerow will be removed to accommodate access. Although not large enough to cause dormouse populations to be isolated or fragmented, this could potentially lead to individual animals being disturbed or physically harmed if active nests are present at the time. However, the likelihood of dormice being present is considered to be very low due to the small extent of sub-optimal habitat and absence of any local dormouse records. Considering this low likelihood and the fact that no dormice (or their signs) have been confirmed, an EPS licence is not required to facilitate the work. However, a precautionary approach to working must be adopted to safeguard dormice in the highly unlikely event that they are present.

Mitigation, Compensation, Enhancement and Monitoring

3.7.20 All measures to prevent impacts to dormice will be detailed in the BMEP. Apart from the small breach required for access, the remainder of the hedgerow network will be safeguarded through implementation of a no works buffer of at least 6m during construction. No vehicle movements, works by heavy machinery or material storage, will be permitted without consent from the EcoW.

3.7.21 As well as dormice, any hedgerow sections to be removed are also suitable for widespread reptiles (including hibernation) and nesting birds during the active season. Therefore, the following approach will be adopted:



- Prior to any vegetation removal, the ECoW will thoroughly search the vegetation and ground-level features to be removed / excavated and 2m either side to confirm the absence of any notable species.
- Although vegetation can potentially be removed at any time of year, it is strongly recommended that such work is restricted to August to February (inclusive) to prevent conflicts with nesting birds.
- Should the ECoW identify any active bird nests prior to removal, the bird nest and 5m of vegetation either side will be suitably marked with hazard tape (or similar) and protected from clearance activity until the ECW is satisfied that the eggs have hatched and young fledged.
- If any dormouse nests (either summer nests or hibernation nests) are found at any point during the supervised work, all vegetation clearance must stop immediately and the ECoW will assess whether a European Protected Species Licence is required or if Natural England need to be informed.
- Once vegetation has been searched and the ECoW confirmed the absence of protected species (or individual features have been marked with hazard tape for protecting bird nests), the vegetation will be cut to just above ground level using hand tools. Disturbance to the ground must be minimised and no roots dug up or compacted at this point to avoid impacts to protected species.

Residual Effects

- 3.7.22 No residual effects are anticipated.

Reptiles

- 3.7.23 Although a formal survey has not been completed, the hedgerow bases are suitable for widespread reptiles such as slow-worm and grass snake.

Potential Impacts

- 3.7.24 Slow-worms and grass snake receive protection under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill or injure a reptile. Although areas of suitable habitat are largely being retained and protected during construction, removing the 20m length of Hedgerow 1 could potentially cause physical harm to reptiles.

Mitigation, Compensation, Enhancement and Monitoring

- 3.7.25 All measures to prevent impacts to reptiles will be detailed in the BMEP. Apart from the small breach required for access, the remainder of the hedgerow network will be safeguarded through implementation of a no works buffer of at least 6m during construction. No vehicle movements, works by heavy machinery or material storage, will be permitted without consent from the EcoW.
- 3.7.26 As described in more detail under 'Dormouse' above, a fingertip search for reptiles will be completed by an experienced ecologist immediately prior to removal to confirm that none will be affected by site activities. If such work takes place during the winter, any suitable adjacent grassland habitat must be rendered unsuitable for hibernation during the previous summer / autumn. This is likely to involve a 2-stage phased strip of any adjacent grassland. Such work will be fully described within the BMEP once the work schedule has been confirmed and site conditions updated.

Residual Effects

- 3.7.27 Due to the enhanced areas of grassland on Site, residual effects have been classified as Beneficial and Significant at the Site level for widespread reptiles, assuming they are present.

Wild Birds

- 3.7.28 On-Site hedgerows are likely to be used by nesting birds, and there is a low possibility of ground-nesting birds in the small area of arable land to be removed.

Potential Impacts

- 3.7.29 Ground-clearance and construction could harm ground-nesting birds within the small area of arable field if they are present at the time of site clearance. The hedgerows are also suitable for use by nesting birds.



Although the development will largely retain trees hedgerows, approximately 20m of H2 will be removed and so could potentially harm nesting birds.

- 3.7.30 All British birds, their nests and eggs are protected under the Wildlife & Countryside Act 1981 (as amended) which makes it an offence to: intentionally kill, injure or take a wild bird; intentionally take, damage or destroy active nests. Some species also receive additional protection for disturbance.
- 3.7.31 Due to such large areas of adjacent arable land, it is not anticipated that the 3.8 ha of cereal crop brought out of cultivation would impact wild birds in terms of nesting or foraging resources. The planting of additional hedgerow and woodland habitat, alongside species-rich grassland, may even cause a net positive effect on local bird populations.

Mitigation, Compensation, Enhancement and Monitoring

- 3.7.32 The BMEP will detail measures to be adopted to prevent harm to ground-nesting birds during construction. In particular, it is recommended that the arable field is ploughed and cut short before mid-February (and maintained at ground-height thereafter) in advance of construction, when nesting birds will be absent.
- 3.7.33 Regarding the removal of the 20m section of Hedgerow 2, the procedure outlined above under 'Dormouse' is recommended to safeguard other notable species (including dormice and reptiles).
- 3.7.34 Where Site clearance is due to commence between April and August, the EcoW will need to complete a nesting bird inspection no more than 48 hours prior to construction. Where the presence of ground nesting birds is confirmed, the EcoW will identify a suitable buffer zone around nests and this area will need to be kept and protected until chicks have fledged. This will be further outlined in the BMEP.

Residual Effects

- 3.7.35 Due to the net gain in foraging and nesting resources with new habitat creation, a residual Non-significant Beneficial effect at a Site level on wild birds is anticipated.



4 CONCLUSIONS

- 4.1.1 Although the scheme has some potential for small-scale local impacts on ecological features, avoidance and mitigation measures have been proposed to ensure these are reduced to acceptable levels. Furthermore, several habitat creation and enhancement measures are proposed which will deliver a net gain for biodiversity, as quantified by the BNG assessment.
- 4.1.2 The most important features recorded on Site were the hedgerows; the majority of this habitat will be retained and safeguarded during construction, with the exception of a small 20m breach required for access. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
- 4.1.3 Assuming the successful implementation of the measures described above, the proposed development can be considered in line with planning policies within Hertfordshire's Local Plan.



APPENDIX A: WILDLIFE LEGISLATION & SPECIES INFORMATION

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

BATS

All 17 species of bat known to breed in England and Wales, and their roost sites, are protected under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, known as the 'Habitats Regulations'. This makes it an offence to deliberately kill or injure a bat, or to deliberately disturb a bat such that its ability to hibernate, breed or rear young, or such that the species' distribution, were significantly affected. It is also an offence to damage or destroy any breeding site or resting place. Intentional or reckless disturbance of bats in their resting places, and damage to or obstruction of resting places are also offences under the Wildlife and Countryside Act 1981 (as amended). Under UK law a bat roost is "any structure or place which any wild [bat]...uses for shelter or protection". As bats tend to reuse the same roosts, legal opinion is that the roost is protected whether or not the bats are present at the time. Penalties for offences against bats or their roosts include fines of up to £5,000 and/or up to six months in prison.

As a result, development works which are likely to involve the loss of or alteration to roost sites, or which could result in killing of or injury to bats, need to take place under licence. Works which could disturb bats may also be licensable, though this needs to be assessed on a case by case basis, as bats' sensitivity to disturbance varies depending on normal background levels, and the definition of disturbance offences under the Habitats Regulations is complex. In practice this means that works involving modification or loss of roosts (typically in buildings, trees or underground sites) or significant disturbance to bats in roosts are likely to be licensable.

Licences can be obtained from Natural England or the Welsh Government to permit works that would otherwise be illegal, provided it can be demonstrated that the proposed works are needed to protect public health or safety, or for other reasons of overriding public interest including social and economic reasons. It is also necessary to demonstrate that there is no satisfactory alternative to the proposed works, and that the conservation status of bats in the area will be maintained. Appropriate mitigation and post-construction monitoring are therefore a requirement of all licences.

DORMOUSE

Dormice and their nests are protected in England and Wales under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, known as the 'Habitats Regulations'. This makes it an offence to deliberately kill or injure a dormouse, or to deliberately disturb a dormouse such that its ability to hibernate, breed or rear young, or such that the species' distribution, were significantly affected. It is also an offence to damage or destroy any breeding site or resting place. Intentional or reckless disturbance of dormice in their nests, and damage to or obstruction of nests are also offences under the Wildlife and Countryside Act 1981 (as amended). Penalties for offences against dormice or their nests include fines of up to £5,000 and/or up to six months in prison.

As a result, development works which are likely to involve the loss of nest sites, or which could result in killing of or injury to dormice, need to take place under licence. Works which could disturb dormice may also be licensable, though this is rarely the case unless loss of dormouse habitat is also proposed, and should be assessed on a case by case basis. In practice this means that works involving any removal of habitat (typically woodland, hedgerows, and scrub) supporting dormice are likely to be licensable.



Licences can be obtained from Natural England or the Welsh Government to permit works that would otherwise be illegal, provided it can be demonstrated that the proposed works are needed to protect public health or safety, or for other reasons of overriding public interest including social and economic reasons. It is also necessary to demonstrate that there is no satisfactory alternative to the proposed works, and that the conservation status of dormice in the area will be maintained. Appropriate mitigation and post-construction monitoring are therefore a requirement of all licences.

AMPHIBIANS

Great Britain supports seven native amphibian species. The four most widespread species; smooth and palmate newts, common frog, and common toad, receive partial protection under the Wildlife and Countryside Act 1981 (as amended) which prohibits sale, barter, exchange, transporting for sale and advertising to sell or to buy. The great crested newt, pool frog and natterjack toad are also fully protected in England and Wales under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Penalties for offences against amphibian species include fines of up to £5,000 and/or up to six months in prison.

Four amphibian species (great crested newt, pool frog, common toad, natterjack toad) are listed as priority species under the UK Biodiversity Action Plan, and are therefore considered to be Species of Principal Importance in England and Wales (excluding the pool frog, which does not occur in Wales) under the Natural Environment and Rural Communities (NERC) Act 2006. All public bodies including local and regional authorities have a duty under this legislation to have regard for the conservation of biodiversity.

GREAT CRESTED NEWT

Great crested newts are protected in England and Wales under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, known as the 'Habitats Regulations'. This makes it an offence to deliberately kill or injure a great crested newt, or to deliberately disturb a great crested newt such that its ability to hibernate, breed or rear young, or such that the species' distribution, were significantly affected. It is also an offence to damage or destroy any breeding site or resting place for great crested newts. Intentional or reckless disturbance of great crested newts in places of shelter (ponds or terrestrial refuges), and damage to or obstruction of places of shelter are also offences under the Wildlife and Countryside Act 1981 (as amended). Penalties for offences against great crested newts include fines of up to £5,000 and/or up to six months in prison.

As a result, development works which are likely to involve the loss of ponds or terrestrial habitat, or which could result in killing of or injury to great crested newts, need to take place under licence. Works which could disturb great crested newts may also be licensable, though this is rarely the case unless loss of great crested newt habitat is also proposed, and should be assessed on a case by case basis. In practice this means that works involving any removal of or significant modification to ponds or terrestrial habitats (typically rough grassland, scrub, hedgerow bases and woodland) supporting great crested newts are likely to be licensable.

Licences can be obtained from Natural England or the Welsh Government to permit works that would otherwise be illegal, provided it can be demonstrated that the proposed works are needed to protect public health or safety, or for other reasons of overriding public interest including social and economic reasons. It is also necessary to demonstrate that there is no satisfactory alternative to the proposed works, and that the conservation status of great crested newts in the area will be maintained. Appropriate mitigation and post-construction monitoring are therefore a requirement of all licences.

REPTILES

All six native reptile species receive protection under the Wildlife and Countryside Act 1981 (as amended). The four more common species (common lizard *Zootoca vivipara*, slow-worm *Anguis fragilis*, adder *Vipera berus* and grass snake *Natrix natrix*) receive partial protection which makes it an offence to intentionally kill or injure a reptile. The two other reptile species (smooth snake *Coronella austriaca* and sand lizard *Lacerta agilis*), both of which are rare with very restricted UK ranges receive full protection under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Penalties for offences against reptile species include fines of up to £5,000 and/or up to six months in prison.

Works such as site clearance or topsoil stripping which could result in killing or injury of reptiles could be considered result in an offence unless measures are taken to minimise the risk of this occurring. Any inadvertent impacts on common reptile species despite these mitigation measures being in place would be considered an 'incidental result of an otherwise lawful operation' which 'could not reasonably have been avoided' and therefore not an offence. Works which could affect smooth snakes or sand lizards, or their habitats, would need to take place under licence from Natural England or Natural Resources Wales. However sites supporting smooth snakes or sand lizards are very rarely affected by development proposals.

In practice, mitigation for impacts of development on common reptiles generally comprise one or more of the following techniques: displacement, in which reptiles are encouraged to move to suitable retained habitat by changing the management of areas affected by development; exclusion, where reptile-resistant fencing is provided between a development site and suitable retained habitat allowing reptiles to be trapped from the development footprint and released elsewhere on the site; and translocation, where animals are trapped from a development site and released on another suitable site nearby. Reptile mitigation proposals, particularly those involving translocation of animals, should be agreed in advance with the local planning authority.



BIRDS

All British birds, their nests and eggs (with certain exceptions) are protected under the Wildlife & Countryside Act 1981 (as amended) which makes it an offence to: intentionally kill, injure or take a wild bird; intentionally take, damage or destroy nests which are in use or being built; intentionally take or destroy birds' eggs; or possess live or dead wild birds or eggs. A number of species receive additional protection through inclusion on Schedule 1 of the Wildlife and Countryside Act; for these it is also an offence to intentionally or recklessly disturb birds while nest building, or at a nest containing eggs or young, or to disturb the dependant young of such a bird. Penalties for offences against bird species include fines of up to £5,000 and/or up to six months in prison.

General licences for control of some bird species are issued by Natural England and Natural Resources Wales in order to prevent damage or disease, or to preserve public health or public safety, but it is not possible to obtain a licence for control of birds or removal of eggs/nests for development purposes. Consequently if nesting birds are present on a development site when works are programmed to start it is usually necessary to delay works, at least in the areas supporting nests, until any chicks have fledged and left the nest. It is usually possible, once chicks have hatched, for an experienced ecologist to predict approximately when they are likely to fledge, in order to inform programming of works on site.

BIODIVERSITY NET GAIN - ENGLAND

Biodiversity net gain (BNG) is an approach to development, and/or land management, that aims to deliver measurable improvements for biodiversity by creating or enhancing habitats. BNG can be achieved on-site, off-site or through a combination of on-site and off-site measures.

The Environment Act (2021) was passed into law in November 2021. Under this act, BNG became mandatory in England under Schedule 14 of the Act. This means that all planning permissions granted in England (with a few exemptions) must deliver at least 10% biodiversity net gain from January 2024, and small sites from April 2024. BNG must be measured using Defra's biodiversity metric and habitats will need to be secured for at least 30 years. The Act sets out the following key components to mandatory BNG:

- Minimum 10% gain required calculated using Biodiversity Metric & approval of net gain plan
- Habitat secured for at least 30 years via obligations/ conservation covenant
- Habitat can be delivered on-site, off-site or via statutory biodiversity credits
- There will be a national register for net gain delivery sites
- The mitigation hierarchy still applies of avoidance, mitigation and compensation for biodiversity loss
- Will also apply to Nationally Significant Infrastructure Projects (NSIPs)
- Does not apply to marine development
- Does not change existing legal environmental and wildlife protections

PLANNING POLICY IN RELATION TO BIODIVERSITY - ENGLAND

The Natural Environment and Rural Communities Act (2006) states that a public authority must, "in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity; Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat". DEFRA issued further guidance on implementation of this act in the document; Guidance for Local Authorities on Implementing the Biodiversity Duty (May 2007), which notes that "Conserving biodiversity can include restoring or enhancing a population or habitat".

The National Planning Policy Framework (NPPF), was published in March 2012 and revised in December 2023. Additional guidance can be found online at <http://planningguidance.planningportal.gov.uk/blog/guidance/>. The NPPF simplifies and collates a number of previous planning documents and outlines the government's objective towards biodiversity.

Paragraph 180 of the NPPF states that planning policies and decisions should contribute to and enhance the natural and local environment by:

- (a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- (b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- (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;
- (e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- (f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.



Paragraph 181 emphasises the importance of: accounting for designated sites; carefully considering the allocation of development land; and taking a strategic approach to green corridors and infrastructure.

It also emphasises the importance of conserving biodiversity and areas covered by landscape designations (Paragraph 182):

Great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty. The conservation of wildlife and cultural heritage are important considerations in all these areas, and should be given great weight in National Parks and the Broads. The scale and extent of development within all these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas.

Paragraph 186 states that: When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying principles including:

- (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;
- (b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- (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 reasons⁶ 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..

Paragraph 187 states that the following should be given the same protection as habitats sites:

- (a) potential Special Protection Areas and possible Special Areas of Conservation;
- (b) listed or proposed Ramsar sites⁷; and
- (c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

There is a general presumption in favour of sustainable development within the NPPF. It is noted in Paragraph 188 that this presumption does not apply where the plan or project is likely to have a significant effect on a habitat site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

ECOLOGICAL ENHANCEMENTS

National Planning Policy in England

Paragraph 185 of the NPPF states that Local Plans should:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity⁶⁵; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- 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.

Paragraph 186 of the NPPF states that local planning authorities should conserve and enhance biodiversity when determining planning applications, by applying principles including:

- supporting developments whose primary objective is to conserve or enhance biodiversity; and
- integrating opportunities to improve biodiversity in and around developments 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.

UK BIODIVERSITY ACTION PLANS

The UK Biodiversity Action Plan (UK BAP) 2011 is a policy first published in 1994 to protect biodiversity and stems from the 1992 Rio Biodiversity Earth Summit. The policy is continuously revised to combine new and existing conservation initiatives to conserve and enhance species and habitats, promote public awareness and contribute to international conservation efforts. Each plan details the status, threats and unique conservation strategies for the species or habitat concerned, to encourage spread and promote population numbers.



Species or habitats identified as priorities under the UK Biodiversity Action Plan receive some status in the planning process through their identification as Species/Habitats of Principal Importance in England and Wales, under the Natural Environment and Rural Communities (NERC) Act 2006 (as amended).

Current planning guidance in England, the National Planning Policy Framework, does not specifically refer to Species or Habitats of Principal Importance, though it includes guidance for conservation of biodiversity in general. Supplementary guidance is available online at <http://planningguidance.planningportal.gov.uk/blog/guidance/> and this guidance indicates that it is 'useful to consider' the potential effects of a development on the habitats or species on the Natural Environment and Rural Communities Act 2006 section 41 list.



APPENDIX B: HABITAT CONDITION ASSESSMENTS

HEDGEROWS

Attributes and functional groupings (A, B, C, D & E)		Criteria (the minimum requirements for 'favourable condition')	H1	H2	H2 (enhanced)	New Hedgerows
Core groups - applicable to all hedgerow types						
A1.	Height	>1.5 m average along length	Y	Y	Y	Y
A2.	Width	>1.5 m average along length	Y	Y	Y	Y
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length (unless 'line of trees')	Y	N	Y	Y
B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length and No canopy gaps >5 m	N	N	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)	Y	Y	Y	Y
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
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	Y	Y	Y	Y
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities	Y	N	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	N	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	Y	Y	N/A
Condition			Good	Moderate	Good	Good



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

MIXED SCRUB (TN2)

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range). ¹ - At least 80% of scrub is native, - There are at least three native woody species ² , - No single species comprises more than 75% of the cover (except hazel <i>Corylus avellana</i> , common juniper <i>Juniperus communis</i> , sea buckthorn <i>Hippophae rhamnoides</i> (only in its restricted native range), or box <i>Buxus sempervirens</i> , which can be up to 100% cover).	Yes	
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran ³) shrubs are all present.	No	
C	There is an absence of invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) and species indicative of suboptimal condition ⁶ make up less than 5% of ground cover.	Yes	
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	No	
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	No	
Number of criteria passed: 2 (Poor)			
Condition Assessment Result (out of 5 criteria)		Condition Assessment Score	
Passes 5 criteria		Good (3)	
Passes 3 or 4 criteria		Moderate (2)	
Passes 2 or fewer criteria		Poor (1)	



GRASSLAND

Grassland - Modified Grassland (MG)

BNG Condition Assessment Criterion Achieved (Y/N)		Post-development landscaped grassland
1	There must be 6-8 species per m ² . If a grassland has 9 or more species per m ² it should be classified as a medium distinctiveness grassland habitat type. NB- this criterion is essential for achieving Moderate condition.	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.	Y
3	Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note- patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	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 cause by high levels of access, or any other damaging management activities.	Y
5	Cover of bare ground between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	Y
6	Cover of bracken less than 20%	Y
7	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	Y
Condition		Good

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)



SUPPLEMENTARY WOODLAND

BNG Condition Assessment					Woodland to be created to targeted condition Moderate
Indicator	Good (3 points)	Moderate (2 points)	Poor (1 point)		
1	Age Distribution	3 age classes present	2 age classes present	1 age class present	1
2	Herbivore Damage	No significant browsing damage evident	Evidence of significant browsing pressure in 40% or less of whole woodland	Evidence of significant browsing pressure in 40% or more of whole woodland	3
3	Invasive Species	No invasive plant species	Rhododendron & laurel not present, other invasive species cover <10%	Rhododendron or laurel present, or other invasive species cover >10%	3
4	No. of Native Tree Species	5 or more native tree/shrub species present	3-4 native tree/shrub species present	0-2 native tree or shrub species present	3
5	Cover of Native Species	>80% of canopy & understory shrubs are native	50-80% of canopy & understory shrubs are native	<50% canopy & understory shrubs are native	3
6	Open Space	0-20% woodland has temporary areas of open space	21-40% woodland has temporary areas of open space	>40% woodland has temporary areas of open space	3
7	Regeneration	All 3 classes present	1 or 2 classes present	No classes or coppice regrowth present	1
8	Tree Health	Tree mortality <10%	11-25% tree mortality	>25% tree mortality and any high risk pest/disease	3
9	Vegetation & Ground Flora	Ancient woodland indicators present	Recognisable NVC community present	No recognisable NVC community	1
10	Vertical Structure	3 or more storeys across all survey plots	2 storeys across all survey plots	1 or less storeys across all survey plots	1
11	Veteran Trees	2 or more veteran trees/ha	1 veteran tree/ha	No veteran trees present	1
12	Deadwood	50% survey plots have deadwood	25-50% survey plots have deadwood	<25% survey plots have deadwood	2
13	Disturbance	No nutrient enrichment or damaged ground	<20% damaged ground and/or <1ha nutrient enrichment	>20% damaged ground and/or >1ha nutrient enrichment	3
Woodland Condition					Moderate (28/39)

Condition Assessment Result	Condition Assessment Score
Total score >32 (33 to 39)	Good (3)
Total score 26 to 32	Moderate (2)
Total score <26 (13 to 25)	Poor (1)



APPENDIX C: BNG HEADLINE RESULTS

Radwell Bury Farm BESS, Baldock		Return to results menu			
Headline Results					
Scroll down for final results ▲					
On-site baseline	Habitat units	7.26			
	Hedgerow units	6.08			
	Watercourse units	0.00			
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	10.47			
	Hedgerow units	8.32			
	Watercourse units	0.00			
On-site net change (units & percentage)	Habitat units	3.21	44.25%		
	Hedgerow units	2.23	36.73%		
	Watercourse units	0.00	0.00%		
Off-site baseline	Habitat units	0.00			
	Hedgerow units	0.00			
	Watercourse units	0.00			
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00			
	Hedgerow units	0.00			
	Watercourse units	0.00			
Off-site net change (units & percentage)	Habitat units	0.00	0.00%		
	Hedgerow units	0.00	0.00%		
	Watercourse units	0.00	0.00%		
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	3.21			
	Hedgerow units	2.23			
	Watercourse units	0.00			
Spatial risk multiplier (SRM) deductions	Habitat units	0.00			
	Hedgerow units	0.00			
	Watercourse units	0.00			
FINAL RESULTS					
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	3.21			
	Hedgerow units	2.23			
	Watercourse units	0.00			
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	44.25%			
	Hedgerow units	36.73%			
	Watercourse units	0.00%			
Trading rules satisfied?	Yes ✓				
Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	7.26	7.98	0.00	No additional area habitat units required to meet target ✓
Hedgerow units	10.00%	6.08	6.69	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

Clarkson and Woods Ltd.

Overbrook Business Centre,
Poolbridge Road, Blackford,
Somerset BS28 4PA

t: 01934 712500

e: info@clarksonwoods.co.uk

www.clarksonwoods.co.uk



CLARKSON & WOODS