

NEW BARN, KNOWLES BROW, HURST
GREEN

PRELIMINARY ECOLOGICAL APPRAISAL AND
BIODIVERSITY NET GAIN ASSESSMENT

OCTOBER 21, 2025

project ecology

Document Title	New Barn, Knowles Brow, Hurst Green
Prepared For	Luna Developments NW Ltd
Document Reference	PE.1974
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Revision	
Date	21/10/2025

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1 Executive Summary

- 1.1.1 The site at Knowles Brow, Hurst Green will be the subject of a planning application for the change of use from an agricultural barn to a single dwelling, associated access and landscaping.
- 1.1.2 The development will have to provide ≥ 0.36 habitat units to meet the 10% gain required.
- 1.1.3 The adjacent Loach Field Wood, a priority broadleaved woodland, is to be protected throughout the clearance and construction phases via a CEMP and SLS.
- 1.1.4 The site proposals are to be undertaken via Reasonable Avoidance Measures for Bats.
- 1.1.5 A pre-commencement Barn Owl survey is to be conducted.
- 1.1.6 The site clearance works are to be carried out outside the nesting bird season. If this is not possible, a nesting bird survey will be required immediately prior to clearance works, by a suitably qualified ecologist.
- 1.1.7 Reasonable Avoidance Measures for terrestrial mammals are to be implemented, prior to/during site clearance works.
- 1.1.8 The Himalayan Balsam located on site is to be eradicated prior to or during the site clearance works via a recognised methodology.

2 Introduction

2.1 Site Location

- 2.1.1 The site is located off Whalley Road, Hurst Green (OS grid reference: SD 69709 38565).

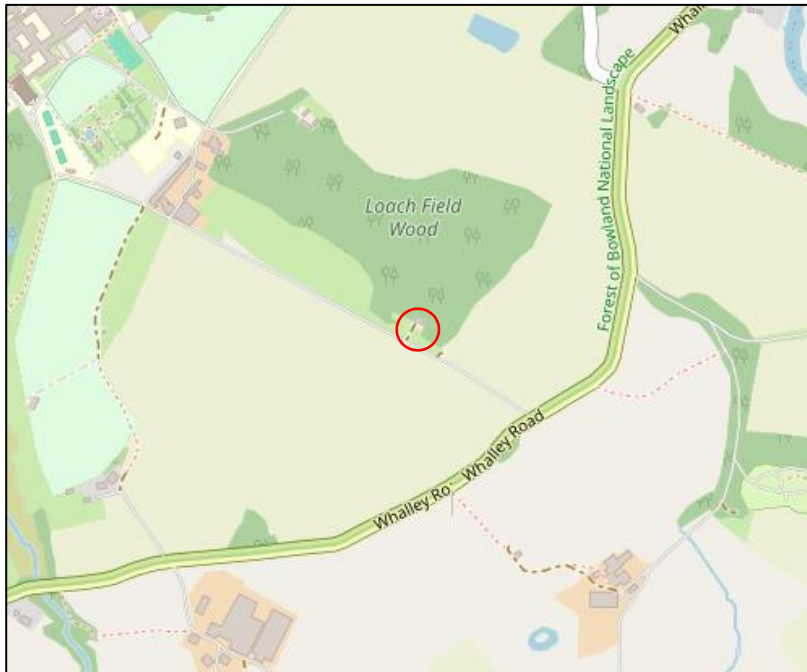


Figure 1: Site Location Courtesy of Open Steet Maps

2.2 Background

- 2.2.1 The site will be the subject of a planning application for the change of use from an agricultural barn to a single dwelling, associated access and landscaping.

2.3 Scope of Work

- 2.3.1 Luna Developments NW Ltd commissioned Project Ecology to:

- Conduct a desk-based study to obtain details of designated sites, protected and notable species within the search area.
- Carry out a site survey and record the extent, type and condition of the habitats within the site and adjacent to the site boundaries.

2.4 Aims and Objectives

- 2.4.1 Search for field signs of notable fauna and flora species and conduct an assessment of the potential habitats and features to support protected and notable species.

2.4.2 Provide mitigation measures to comply with current habitat and protected species policy and legislation.

2.4.3 Calculate the baseline biodiversity units.

2.5 Site Visit

2.5.1 The survey was undertaken on 7th October 2025 by Ben Crossthwaite *MCIEEM*. Ben has over 10 years' professional experience of undertaking JNCC Phase 1 Habitat Surveys, UK Habitat Classification Surveys and protected species surveys across the UK.

2.5.2 The weather at the time of the survey was overcast, dry and cool.

3 Survey Methodology

3.1 Desktop Survey

3.1.1 A desktop study was conducted using online resources to obtain information pertaining to any sites afforded statutory (e.g. SSSI) and non-statutory (e.g. LWS) designations within 1km of the site boundary. To do so, the 'Multi Agency Geographic Information for the Countryside (MAGIC – provided by Defra)' along with data from the 'Natural England Open Data Geoportal' was accessed to gather such information; this interactive mapping service was also used to locate any European Protected Species Mitigation Licenses (EPSML) and species records to further inform conclusions concerning protected species in the context of the study site and its proposed development.

3.1.2 A data search was not undertaken given the small-scale, low impact nature of the proposals.

3.2 Habitat Survey

3.2.1 A Habitat Survey was carried out on site. The survey was carried out in accordance with the UK Habitat Classification system¹ and Guidelines for Preliminary Ecological Appraisal (CIEEM 2017²). The method records the habitat types present in and immediately surrounding the site, based on the UK Hab descriptions. Habitats, species and features of particular interest were target noted.

3.3 Biodiversity Net Gain

3.3.1 During the site survey, the ecological condition of each habitat was assessed in accordance with the Defra (2023) guidelines³. Habitat types recorded and mapped during the field survey were also recorded using the UK Habitat Classification system⁴, that forms the basis of the Statutory Metric habitat classifications.

3.3.2 Habitat data including type, area (or length), condition and strategic location were uploaded to the Defra Statutory Biodiversity Metric Calculation Tool spreadsheet to determine the baseline value of the site. The extent of any habitats to be retained or enhanced was also entered into baseline worksheets.

¹ Butcher, B., Carey, P., et al. (2020). UK Habitat Classification – Habitat Definitions V1.1. at <http://UKhab.org>

² CIEEM 2017. Guidelines for Preliminary Ecological Appraisal.

³ Defra (2023) The Statutory Biodiversity Metric: User Guide (draft). November 2023.

⁴ Butcher, B., Carey, P., et al. (2020). UK Habitat Classification – Habitat Definitions V1.1. at <http://UKhab.org>

3.4 Bat Survey

3.4.1 A survey of the building was undertaken in accordance with the standard methods described in the 'Bat Worker's Manual' (JNCC 2004) and 'Bat Surveys – Good Practice Guidelines' (BCT 2023⁵). The survey comprised the following elements:

- A preliminary inspection of the exterior of the buildings to look for obvious signs of bat activity (such as droppings on windowsills) and assessing the potential for entry/exit into the roof. The survey was carried out with the use of binoculars, drone and endoscope where required.
- An assessment of the surrounding habitat quality for bats was carried out by walking the area on foot and later from reference to aerial images (Google Maps). These searches were used to identify important land use and habitat features known to be favoured by bats.

3.4.2 Interpretation of survey findings and assessment of roosting potential was undertaken using professional judgement and criteria described in published guidance⁶.

3.5 Nesting Bird Survey

3.5.1 Evidence of nesting birds found on site or close to the site was recorded during the survey.

3.5.2 Habitats throughout the site and in the immediate surrounding area were assessed for their value to roosting, feeding and nesting birds, as indicated by the amount of shelter, feeding value, woody vegetation structure and species diversity of tree and shrub species in the site.

3.6 Survey Limitations and Constraints

3.6.1 The survey was conducted during the sub-optimal time of year for botanical surveys. However, given the ubiquitous habitats present on site, a robust characterisation of the sites habitats could be achieved.

3.6.2 The site was fully accessible. There were no constraints to the survey of the site.

3.6.3 Field survey results are valid for a limited duration and no investigation can provide a complete description and characterisation of a site. The composition of habitats and species can change depending on environmental variables and the mobility of species, so the results of a study become less reliable over time. In some cases, surveys that are 3 years old may be acceptable for a project assuming that habitats have not significantly changed in the intervening period, but for protected species it is likely that survey data will need to be no more than 18 months old.

⁵ Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good practice guideline (4th edition)*. The Bat Conservation Trust, London.

⁶ Mitchell-Jones, A. J. (2004) *Bat Mitigation Guidelines*. English Nature, Peterborough.

4 Results

4.1 Desktop Survey

- 4.1.1 The desk study results for statutory sites returned zero result within the study area.
- 4.1.2 The desk study results for non-statutory protected sites returned sites within the study areas. These are shown in Table 1 below.

Designation	Site Name	Distance From Site Boundary
Biological Heritage Site (BHS)	Spring Wood	0.6km northeast
BHS	Cross Gills Former Sand Quarry	0.627km southwest
BHS	River Ribble from London Road Bridge Preston, in West, to County Boundary, in East	0.649km south
BHS	River Hodder From Confluence with River Ribble Upstream to Cross of Greet Bridge/ Bowland Fells SSSI Boundary	0.745km northeast
BHS	Raid Deep Wood	0.78km southwest
BHS	Over Hacking Wood	0.94km north

Table 1 showing the results of the non-statutory sites located within the study area

- 4.1.3 The desk study identified that the site is located within the Impact Risk Zone of Hodder River Section Site of Special Scientific Interest (SSSI). The proposals are unlikely to require the Local Planning Authority to consult with Natural England as the proposals do not trigger any of the criteria.

4.2 Habitat Survey

- 4.2.1 The habitat maps are located in Appendix B. Target notes and photographs are contained in Appendix C. Species lists for each habitat can be seen in Appendix D.
- Modified Grassland
- 4.2.2 This habitat comprises the road verges at the entrance of the site off Whalley Road and the proposed access through the existing pastoral field.
- 4.2.3 The grass and herbaceous species are indicative of eutrophic soil conditions with Perennial Rye-grass *Lolium perenne* and undesirable ruderals dominating. Artificial Unvegetated, Unsealed Surface
- 4.2.4 This habitat comprises areas of compact crush-and-run which make up parts of the access track. Developed Land; Sealed Surface
- 4.2.5 This habitat comprises the footprint of the building and area of the surrounding concrete hardstanding. Tall Forbs
- 4.2.6 Tall forbs are found around much of the peripheries of the building, dominated by undesirable ruderals and Himalayan Balsam *Impatiens glandulifera*.
- 4.2.7 The tall forbs form the fringe habitat of the surrounding broadleaved woodland.

Priority Habitats

- 4.2.8 The tall forb habitat on site forms part of the surrounding priority broadleaved woodland habitat, formally called Loach Field Wood (unique identification of PHID36972691_043871836).

4.3 Biodiversity Net Gain

- 4.3.1 The results of the Biodiversity Net Gain baseline should be read in conjunction with the Statutory Metric Condition Assessment and Calculation Tool documents⁷.
- 4.3.2 A summary of the baseline unit scores on site can be seen in Table 1.

Habitat	Size/Length	Unit Type (Habitat, Hedgerow, River)	Condition	Unit Total
Modified grassland	0.116ha	Habitat	Poor	0.23
Artificial unvegetated, unsealed surface	0.0595ha	Habitat	N/A - Other	Zero
Developed land; sealed surface	0.085ha	Habitat	N/A - Other	Zero
Tall forbs	0.0479ha	Habitat	Poor	0.1
Total				0.33

Table 2 showing the base unit totals for each unit/habitat type on site







4.4 Bats

- 4.4.1 The nearest record of a granted European Protected Species Licence for bats is located 1.19km northwest of the site. The record is of a Soprano Pipistrelle 'breeding site' dated 2019-2029 (2019-42670-EPS-MIT)⁸.
- 4.4.2 The sites habitat provides unsuitable bat foraging and commuting habitat. However, the adjacent Loach Field Wood provides good habitat.
- 4.4.3 The results of the Preliminary Roost Assessment (PRA) of the lower-ground level garage are described in detail in Table 3 below.

⁷ Both documents will be provided separately.

⁸ Magic Maps - Granted European Protected Species Applications (England)

Table 3. PRA Results

Building Reference	Description	Photographs	Bat Roost Potential Suitability
New Barn	<p>A double-height barn with a pitched roof with 2 single storey stable sections with sloped roofs.</p> <p>The building is constructed with stone. The stone is in good condition, and the associated mortar is largely intact and in reasonable condition. However, small sections are missing mortar under leaking gutters and around some of the doorways and windows. These features were inspected further with the use of a thermal scope and endoscope. No bats or evidence of bats was found, with many of the features found to be shallow and not providing suitable roost conditions.</p> <p>The pitched and sloped roofs are covered with slate tiles. A large section of the roof of the main barn building is missing. The remaining roof sections are largely in reasonable condition. However, there are some missing and slipped roof tiles.</p> <p>The ridge tiles are largely present. The roof edges at the gable ends are finished with coping stones. The stones are largely intact and sealed with mortar to the surrounding walls and tiles. However, gaps and cracks are present at the foot of the coping stones. These were inspected further with the drone and endoscope where possible. No bats or evidence of bats was found, with many of the cracks and gaps found to be shallow not providing features bats may exploit.</p>	     	Negligible

The condition and nature of the building provide open access into the building's 'internal' spaces.

The interior spaces of the building are light, cool and draughty as a result of the open nature of the building.

The building consists of a main barn and 2 adjoining stable buildings, all open to the underside of the roof with no roof void spaces present.

The internal walls and roof timbers are sealed with no potential roost features or entry points to onward cavities present.

No evidence of bats was found during the internal or external survey.







4.5 Badger

4.5.1 No evidence of Badger was located on site or within 10 metres of the site boundary.

4.6 Nesting Bird

4.6.1 The building on site provides potential nesting habitat for passerine bird species.

4.6.2 Historic evidence of Barn Owl *Tyto alba* splashing was recorded during the site survey. No evidence of nesting was found.

4.7 Amphibians

4.7.1 The site does not provide breeding habitat for amphibians.

4.7.2 3 ponds are located within 500 metres of the site boundary, of which zero of the ponds are located within 250m from the site boundary (see Figure 2).

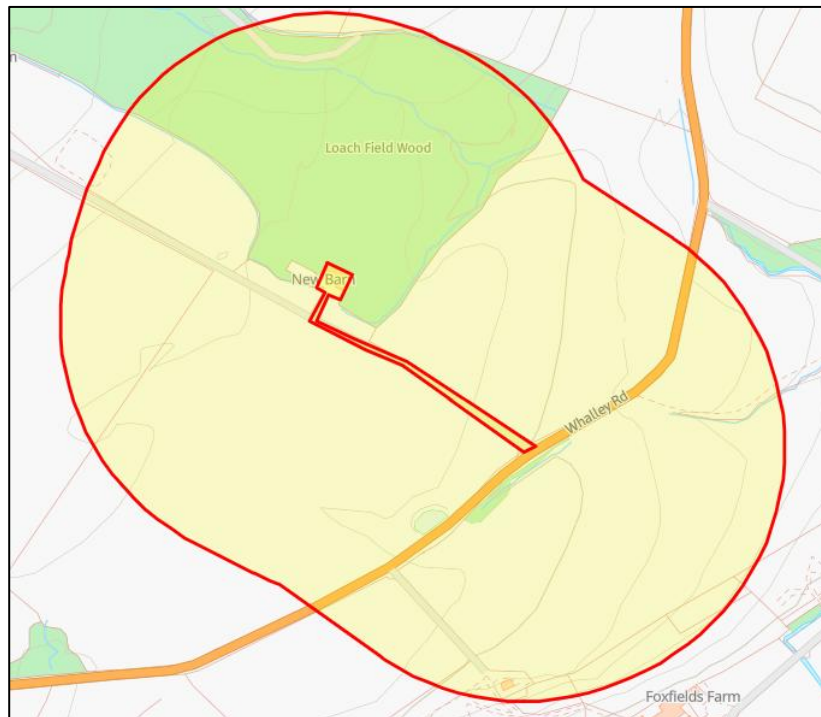


Figure 2. Site redline boundary, 250m buffer

New Barn, Knowles Brow, Hurst Green

4.7.3 The sites habitats provide unsuitable foraging, dispersal, and cover opportunities for amphibians. The adjacent woodland provides more favourable terrestrial habitat for amphibians.

4.7.4 No records of granted Great Crested Newt European Protected Species Licences are located within the study area.

4.7.5 Impacts on amphibians are not anticipated, due to the lack of breeding habitat in the locality, and are not considered further in this report.

4.8 Amphibious Mammals

4.8.1 The site does not provide habitat for Otter *Lutra lutra* or Water Vole *Arvicola amphibius*. Therefore, the permanent presence of these species is not anticipated.

4.8.2 Impacts on amphibious mammals are not anticipated and are not considered further in this report.

4.9 Reptile

4.9.1 The site provides suboptimal habitat for reptiles. The site does not provide suitable basking sites for reptiles.

4.9.2 No sightings or evidence of any reptile species was recorded during the site survey. It is considered reptiles are unlikely to be present on site and are not considered further in this report.

4.10 Hedgehog

4.10.1 The presence of Hedgehog cannot be discounted as the site provides suitable foraging and commuting habitat.

4.11 Invasive Species

- 4.11.1 Himalayan Balsam *Impatiens glandulifera*, an invasive, non-native species is located across the site, around the barn and within the adjacent woodland.

5 Evaluation

5.1 Development Context

5.1.1 The site proposals are predicted to result in the loss of modified grassland.

5.2 Impacts on Designated Sites

5.2.1 It is unlikely any direct or indirect impacts will occur to any statutory or non-statutory protected site recorded within the desk study due to the relatively small scale, low-impact nature of the site proposals and the extensive amount of development between the sites.

5.3 Impacts on Habitats

Modified Grassland

5.3.1 The grassland on site is considered to be of low ecological value. The grassland provides a minor source of pollen and nectar for invertebrates and limited foraging and commuting habitat for amphibians and small mammals. Potential impacts to this habitat are to be at site level only.

Tall Forbs

5.3.2 The tall forbs on site is considered to be of low ecological value. The habitat is dominated by Himalayan Balsam and undesirable ruderal species. These comprising species provide a source of pollen and nectar for invertebrates and foraging and commuting habitat for amphibians and small mammals. Potential impacts to this habitat are to be at site level only.

Priority Habitat

5.3.3 The sites tall forb habitat forms fringe habitat of the adjacent Loach Field Wood, a priority broadleaved woodland. The woodland habitat is to be protected through the clearance and construction phases via a Construction Environment Management Plan (CEMP).

5.4 Biodiversity Net Gain

5.4.1 The evaluation of the Biodiversity Net Gain Assessment should be read in conjunction with the Statutory Condition Assessment and Metric Calculation Tool documents.

5.4.2 An extract of the headline results, from the Statutory Defra Metric Calculation Tool result, can be seen in Appendix E.

5.4.3 Within the application site the baseline unit values are as follows:

- Habitat units are 0.33

5.4.4 For the proposed development to achieve 10% net gain in all biodiversity units, it will be necessary to seek mitigation or compensation for ≥ 0.36 habitat units within the application site or alternatively by direct management of land owned by the applicant or the purchase of biodiversity units from a third party.

5.5 Mitigation Hierarchy

- 5.5.1 The mitigation hierarchy is a widely used tool that guides users towards limiting as far as possible the negative impacts on biodiversity from development projects.
- 5.5.2 The mitigation hierarchy steps are as follows:
- Avoid - Project proposals must give the highest priority to 'avoidance' strategies in accordance with the mitigation hierarchy.
 - Minimise - Where avoidance is not feasible, it is essential to minimise negative impact by modifying the project design/strategy. All sensitive habitats must be avoided at all costs.
 - Mitigate - All non-avoidable ecological damage must be compensated.
 - Offset - Final resort after all options have been exhausted: the most expensive, complex, and high-risk approach.
- 5.5.3 Avoidance measures are not considered necessary given the habitats of low ecological value on site.
- 5.5.4 Mitigation measures will be provided on site where possible. This is to be finalised once the site layout plans have been produced.

5.6 Impacts on Species

Bats

- 5.6.1 The adjacent woodland habitat provides good habitat for foraging and commuting bats and is likely to be utilised by bat species. This habitat is to be protected during the clearance and construction phases via a CEMP and Sensitive Lighting Scheme (SLS).

- 5.6.2 The building on site has an open nature due to its former use and more recently, due to the missing section of roof. This provides cool, light and draughty conditions, and damp in places, all unfavourable environments for roosting bats.
- 5.6.3 The building was found to support potential roost features. However, many of these were found to be to be shallow and not providing suitable cover or do not provide suitable roosting conditions for bats.
- 5.6.4 No evidence of bat activity or occupancy was found during the internal or external surveys.
- 5.6.5 A Preliminary Roost Assessment was conducted on the building in 2013 by Earthworks Environmental Design⁹. Although this data is over 12 years old, the results are as follows: *"A daylight inspection of the barn in March found no evidence of bat activity although it is worth noting the presence of at least 100 ewes in the building making inspection more difficult than if the barn was empty. Both side crofts were also searched for evidence of perching and feeding activity by bats, none was found. There were no accumulations of bat droppings or discarded insect prey in any part of the property"*.
- 5.6.6 A single dusk emergence survey was undertaken with no bat emergences recorded. Bats were recorded foraging along the woodland edges as well as in and around the barn itself.

⁹ Earthworks Environmental Design, 2013. European Protected Species Survey (EPS) at: New Barn, Stonyhurst, Lancashire

- 5.6.7 Updated surveys were carried out by Earthworks Environmental Design¹⁰ in 2016. The associated report summarised the following *“Small numbers of common pipistrelle bats and soprano pipistrelle bats (1 to 5 bats) are likely to be present throughout the year (all months) roosting mainly between slates and roofing felt or within stonework crevices.*
- 5.6.8 *If it can be demonstrated that the proposed development is unlikely to result in a breach of the Habitat Regulations, a development licence is unlikely to be required as no wildlife offence will be committed. The local planning authority however will require a detailed method statement prior to approval of the planning application to ensure that “the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.”*
- 5.6.9 *The method statement will outline the mitigation measures necessary to remove or reduce the impact of the development on protected species by adopting careful working practices and timing of the works to avoid causing disturbance, injury or death to roosting bats and nesting wild birds or avoiding operations likely to result in damage or destruction of a bat roost or resting place.*
- 5.6.10 *Additionally, compensation measures are likely to be required at the site to offset the damage caused by the development. Compensatory works may include creation of new roost sites (bat boxes and roof access tiles) for bats and nesting / roosting swallows (nest platforms).*
- 5.6.11 *The existence of a method statement helps to establish a defence against possible prosecution in the event of bats being disturbed by demonstrating that all reasonable steps have been taken to minimise the impact of the development on protected species.*
- 5.6.12 *Further survey effort at this property is not required”.*

5.6.13 The condition of the building has deteriorated since the surveys in 2013 and 2016, offering more unsuitable conditions than those likely present in 2016.

5.6.14 The building is considered to offer negligible roost suitability. However, due to the presence of good foraging habitat in the vicinity of the building, the site proposals are to be undertaken via Reasonable Avoidance Measures (RAM) for bats.

Badger and Hedgehog

5.6.15 No evidence of a Badger sett was recorded during the site survey.

5.6.16 It is likely the sites habitats are utilised by Hedgehog for foraging and commuting.

5.6.17 These species can be attracted to active sites because of soil heaps and bare ground, which creates foraging opportunities. Without mitigation Hedgehog can be harmed on sites that include excavation works.

5.6.18 In the absence of mitigation, the proposed development has the potential to result in direct impacts to Hedgehog.

Nesting Birds

5.6.19 No active Barn Owl nesting site or roost is present. The evidence suggests a historic roost site. However, it is recommended a pre-commencement survey is undertaken.

¹⁰ Earthworks Environmental Design, 2016. Bat Scoping Survey Report: New Barn, Stonyhurst, Lancashire

- 5.6.20 Although no evidence of nesting birds was found during the site survey, the building provides suitable bird nesting habitat.
- 5.6.21 In the absence of mitigation, the proposed development has the potential to result in direct impacts to nesting birds.

6 Conclusion and Recommendations

6.1 Further Survey Work

6.1.1 No further survey work is required at this time.

6.2 Mitigation and Enhancement Measures

Habitats

6.2.1 The adjacent Loach Field Wood, a priority broadleaved woodland, is to be protected throughout the clearance and construction phases via a CEMP and SLS.

Biodiversity Net Gain

6.2.2 The development will have to seek mitigation to meet the following units to meet the 10% gain via the means stated above.

- Habitat units - ≥ 0.36

Bats

6.2.3 The site proposals are to be undertaken via RAM for bats. This will include a toolbox talk from a suitably qualified ecologist.

Nesting Birds

6.2.4 Impacts on nesting birds should be avoided by carrying out the construction work and similar operations outside of the bird breeding season (March-September). Construction activities that might directly impact upon breeding birds should hence be limited to the October-February period. If vegetation has to be cleared during the bird breeding season checks immediately before clearance by a suitably qualified ecologist will be required. If nesting activity is detected work in that area will need to stop until the ecologist considers that nesting activity is finished.

Terrestrial Mammals

6.2.5 To ensure that Hedgehog and any other mammals are not trapped or harmed during the site clearance works, smaller excavations should be covered if left overnight. Larger excavations, if left overnight or for longer periods, should be ramped to enable animals to escape.

Invasive Species

6.2.6 The Himalayan Balsam located on site is to be eradicated prior to or during the site clearance works via a recognised methodology.

7 Appendix A: Planning Policy and Legislation

National Policy

The National Planning Policy Framework (NPPF 2025) describes the Government's planning policy for England and how it should be applied. Within this framework, the requirements in relation to biodiversity are included within several policies. The two most relevant to individual planning decisions are Paragraphs 187 and 193, shown below:

- 187. 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;
 - c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
 - 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.
- 193. When determining planning applications, local planning authorities should apply the following principles:
 - a. if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

- 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 reasons 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.

Legislation

The Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000) includes the notification and confirmation of Sites of Special Scientific Interest (SSSIs). SSSIs can be notified for their floral, faunal, geological, or physiographical features. Protection against damaging operations and management of SSSIs is also included within the Act. Impact Risk Zones (IRZs) are zones around an SSSI account for the particular sensitivities of the features for which it is notified and identify development proposals which could have adverse impacts.

The Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000) protects native animals, plants and habitats. Under the Act it is an offence to intentionally kill, injure or take any wild animal listed on Schedule 5 and it is an offence to interfere with places used for shelter or protection, or intentionally disturb animals occupying such places. The Act prohibits picking, uprooting or destroying any wild plant (or any attached seed or spore) listed in Schedule 8.

European Protected Species (EPS) such as bats, Hazel Dormouse, Otter, Natterjack Toad, Smooth Snake, Sand Lizard and Great Crested Newt are protected by the Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000) and the Conservation of Habitats and Species Regulations 2017. The Acts make it an offence to:

- a. Deliberately capture, injure or kill an EPS;
- b. Deliberately impair an EPS's ability to survive, breed, reproduce, rear or nurture young; to hibernate or migrate; or significantly affect the local distribution or abundance of the EPS.
- c. Possess or control live or dead EPS or any part of, or anything derived from a EPS;
- d. Damage or destroy a breeding site or resting place of an EPS;
- e. Intentionally or recklessly obstruct access to any place that is used for shelter or protection by an EPS;
- f. Intentionally or recklessly disturb a structure or place that it uses for shelter or protection that is occupied by an EPS.

All common herptiles are protected under the Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000). Grass Snake, Slow Worm, Common Lizard, Adder are protected against intentional killing or injury. Common Frog, Common Toad, Smooth Newt and Palmate Newt is protected against sale. In addition, all British reptiles, Common toad and Great Crested Newt are listed as Species of Principal Importance.

All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally kill, injure or take any wild bird or take, damage, or destroy its nest whilst in use or being built, or take or destroy its eggs. It is an offence to intentionally or recklessly disturb a species listed on Schedule 1 of the Act while they are nest building or at or near a nest with eggs or young, or to disturb the dependent young.

The Protection of Badgers Act 1992 makes it an offence to wilfully, or to attempt to kill, injure, take, possess or cruelly ill-treat a Badger, or intentionally or recklessly interfere with a sett. Interference of a sett includes disturbing badgers during occupation of a sett, or damaging or destroying a sett, or obstructing access to the sett.

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places a duty on every public authority to have regard to conserving biodiversity. Section 41 of the same Act requires the Secretary of State to publish a list of the living organisms and types of habitats that are of 'Principal Importance' for the purpose of conserving biodiversity. The Secretary of State must take steps, as appear reasonably practicable, to further the conservation of those living organisms and habitats in any list published under this section. The list of species and habitats of principal importance currently includes 943 species and 56 habitats. These are the species and habitats found in England which are regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.

The Hedgerows Regulations 1997 protect 'important' hedgerows from destruction or damage. A hedgerow is 'important' if it (a) has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations. Under the Regulations, it is against the law to remove or destroy 'important' hedgerows unless permitted by the local planning authority.

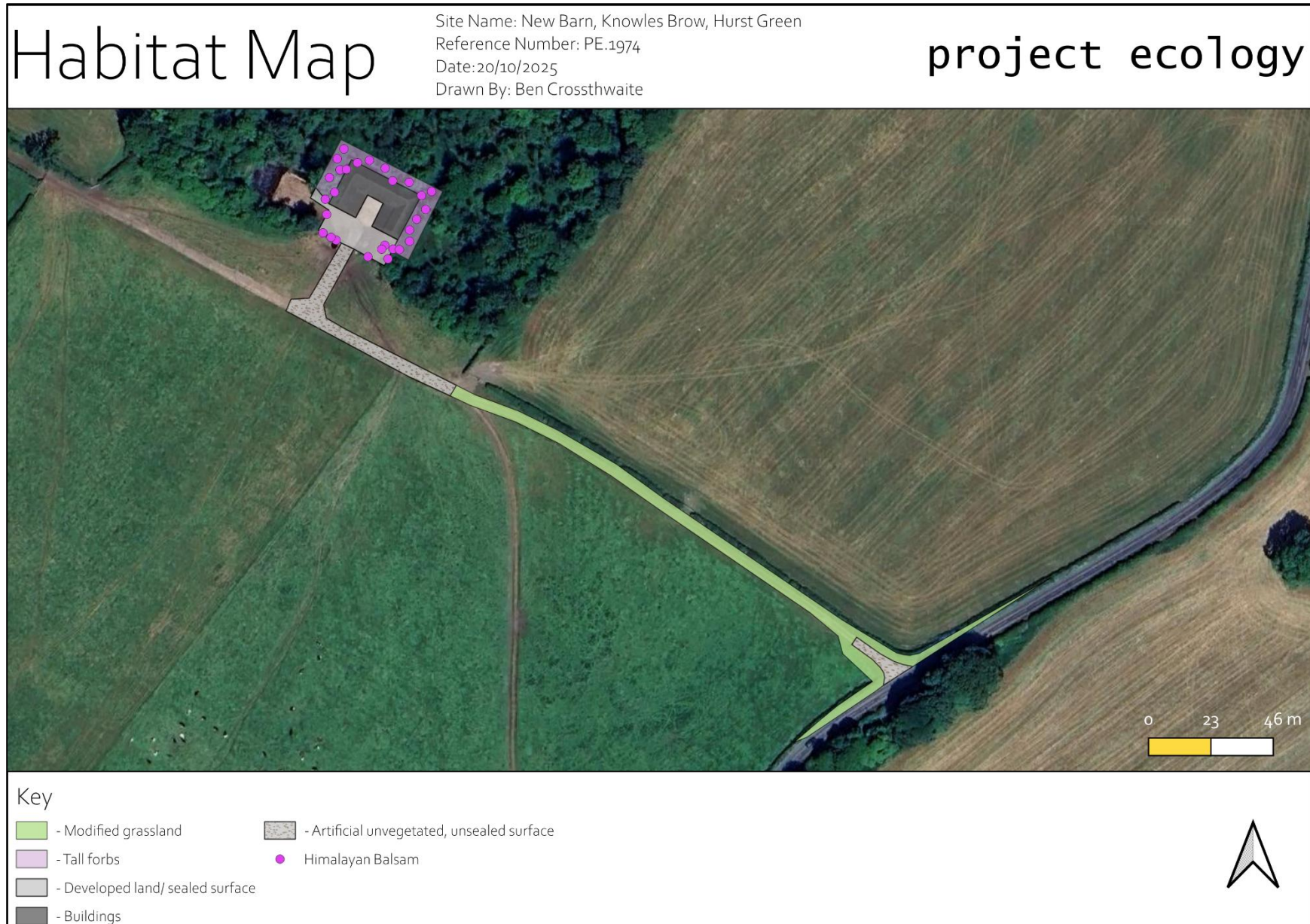
The Environment Act 2023 makes it mandatory for housing and development, subject to some narrow exemptions, to achieve at least a 10% net gain in value for biodiversity – a requirement that habitats for wildlife must be left in a measurably better state than before the development. Developers must submit a 'biodiversity gain plan' alongside usual planning application documents. The local authority must assess whether the 10% net gain requirement is met in order to approve the biodiversity gain plan.

The Environment Act 2023 strengthens the duty on public authorities (NERC Act, 2006) to have regard to the conservation of biodiversity.

The Environment Act 2023 amends the Wildlife and Countryside Act 1981 to introduce an additional purpose for granting a protected species licence in relation to development, 'for reasons of overriding public interest', and two additional tests for the granting of such licences: that there is 'no other

satisfactory solution' and that granting the licence is 'not detrimental to the survival of any the population of the species concerned'. These changes will reduce the scope for unlicensed activities to provide clear safeguards before licences can be granted, providing legal certainty and clarity to developers about their environmental obligations.

8 Appendix B: Habitat Map – Pre-development



9 Appendix C: Target Notes and Photographs

Target Notes		
Reference No.	Habitat/Feature/Species	Photograph
	Modified Grassland	

	<p>Artificial Unvegetated, Unsealed Surface</p>	 A gravel path or driveway running through a grassy field towards a gate in the distance.	 A close-up view of a gravel surface with some small green plants growing between the stones.	
	<p>Developed Land; Sealed Surface</p>	 A concrete path or driveway between stone buildings.	 A concrete surface with some puddles and a metal fence in the background.	
	<p>Tall Forbs</p>	 A dense patch of tall, green, leafy plants (forbs) growing in a field.	 Tall forbs growing near a stone building.	

	<p>Himalayan Balsam</p>		
	<p>Barn Owl splashing and old pellets</p>		
	<p>Potential nesting habitat</p>		

10 Appendix D: Species Lists

Species List			
Common Name	Latin Name	Abundance (or Notes)	Conservation Status
Modified Grassland			
Perennial Rye-grass	<i>Lolium perenne</i>	A	Least Concern
Nettle	<i>Urtica dioica</i>	D	Least Concern
Horsetail sp.	<i>Equisetum</i> sp.	O	Least Concern (typical spp.)
Hogweed	<i>Heracleum sphondylium</i>	O	Least Concern
Daisy	<i>Bellis perennis</i>	O	Least Concern
Dandelion	<i>Taraxacum officinale</i> agg.	O	Least Concern
Bramble	<i>Rubus fruticosus</i> agg.	O	Least Concern
Cocks-foot	<i>Dactylis glomerata</i>	R	Least Concern
Ribwort Plantain	<i>Plantago lanceolata</i>	R	Least Concern
White Clover	<i>Trifolium repens</i>	O	Least Concern
Red Fescue	<i>Festuca rubra</i>	R	Least Concern
Knotgrass	<i>Polygonum aviculare</i>	R	Least Concern
Tall Forbs			
Nettle	<i>Urtica dioica</i>	D	Least Concern
Hedge Bindweed	<i>Calystegia sepium</i>	O	Least Concern
Pendulous Sedge	<i>Carex pendula</i>	O	Least Concern
Bramble	<i>Rubus fruticosus</i> agg.	O	Least Concern
Cocks-foot	<i>Dactylis glomerata</i>	O	Least Concern
Red Fescue	<i>Festuca rubra</i>	O	Least Concern
Spear Thistle	<i>Cirsium vulgare</i>	R	Least Concern
Horsetail sp.	<i>Equisetum</i> sp.	R	Least Concern (typical spp.)
Willowherb sp.	<i>Epilobium</i> sp.	F	Least Concern
Cleavers	<i>Galium aparine</i>	R	Least Concern

11 Appendix E: Calculation Tool, Headline Results Extract

FINAL RESULTS				
Total net unit change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	<i>Area habitat units</i>			-0.33
	<i>Hedgerow units</i>			0.00
	<i>Watercourse units</i>			0.00
Total net % change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	<i>Area habitat units</i>			-100.00%
	<i>Hedgerow units</i>			0.00%
	<i>Watercourse units</i>			0.00%
Trading rules satisfied?		No - Check Trading Summaries ▲		
Area created must match area lost for both onsite and offsite ▲				
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
<i>Area habitat units</i>	10.00%	0.33	0.36	0.36
<i>Hedgerow units</i>	10.00%	0.00	0.00	0.00
<i>Watercourse units</i>	10.00%	0.00	0.00	0.00
No additional hedgerow units required to meet target ✓ No additional watercourse units required to meet target ✓				
Input errors/rule breaks present in metric ▲				