

Ecological Enhancement Plan

Survey site:

Holborn Barn, Dane End, Therfield, Hertfordshire, SG8 9RH

Client:

Leon Cassidy

Survey date:

6th January 2026

Project:

This report is prepared to inform a planning application with the North Hertfordshire District Council. The proposal is described as:

‘Extension and conversion of the existing barn into a four bedroom dwelling with associated landscaping, following demolition of non-original stable extension, car port and lean-to structure’

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Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

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1.0 Introduction

Arbtech Consulting Limited was instructed by Leon Cassidy to produce an Ecological Enhancement Plan for Holborn Barn, Dane End, Therfield, Hertfordshire, SG8 9RH (hereafter referred to as “the site”).

A planning application for extension and conversion of the existing barn into a four-bedroom dwelling with associated landscaping, following demolition of non-original stable extension, car port and lean-to structure (hereafter referred to as “the proposed development”) was granted approval, with conditions, by North Hertfordshire District Council in November 2025 (25/01539/FP). This plan has been produced to inform the discharge of 13, which states:

No development shall take place until an Ecological Enhancement Plan (EEP) detailing the inclusion of integrated swift boxes in buildings / structures as informed by the submitted April 2025 Ecological Appraisal has been submitted to and approved in writing by the local planning authority. The agreed measures are to be implemented on site prior to the first occupation of the first dwellinghouse hereby approved and shall remain on site thereafter.

Reason: To ensure development secures biodiversity enhancements in accordance with Policy NE4 of the Local Plan.

A plan showing the proposed development is provided in Appendix 1.

The aim of this plan is to outline mitigation measures required to minimise impacts on biodiversity as well as to outline habitat creation and enhancement opportunities and long-term management which will ensure that a net gain in biodiversity is achieved and maintained on the site, in accordance with the National Planning Policy Framework (NPPF).

This plan has been informed by an Ecological Appraisal which was completed by Cherryfield Ecology in April 2025 (Cherryfield Ecology, 2025).

2.0 Site Context and Survey Information

2.1 Site Location and Landscape Context

The site is located at National Grid Reference TL 34712 36154 and has an area of approximately 0.117ha comprising buildings, introduced shrubs and developed land; sealed surface. The site is located in Therfield, Hertfordshire and is surrounded by arable fields and pasture in the immediate vicinity. The River Rib runs ~10m west of the site boundary and associated drains are also located ~370m west of the site. Additionally, seven ponds are found northwest of the site, the closest is ~269m from the site boundary. There are pockets of woodland surrounding the site, including the rookery, which is located ~568m east and Hobb's grove, which is ~734m southwest. A site location plan is provided in Appendix 2.

2.2 Ecological Information

Below summarises the survey findings for the site and outlines any potential impacts as a result of the proposed development along with recommendations and biodiversity enhancement opportunities, as detailed in Ecological Appraisal (Cherryfield Ecology, 2025).

Bats:

- Approx. 7 droppings and feeding remains were found within B1A. B1 is a confirmed roost, due to the presence of bat droppings and feeding remains found within the building. Features include lifted interlocking clay tile where bats may reside.
- Surveys undertaken in 2023 found that B1, was confirmed a roost due to the presence of bat droppings within the main barn. Follow up emergence surveys carried out by Cherryfield Ecology (2023) showed three common pipistrelle day roosts, and a brown long-eared maternity roost was recorded. All the surveys showed that the surrounding yard is used by foraging and commuting bats.

Nesting Birds:

- Several bird nests were found within the buildings B1A and B2 on site. The site provides high potential for breeding birds due to the presence of nests on site and the open access buildings which provide nesting opportunities. The shrubs on site could also provide suitable habitat for nesting birds.
- No further surveys are recommended; however, the development should take place outside the nesting season (March to August). If this is not possible, it is recommended that a qualified ecologist is on-site to ensure the building is not occupied by breeding birds, prior to works commencing.
- A selection of open-fronted boxes and songbird boxes can be installed. These will be installed at a minimum of 2m high and ideally face north to east.
- Swift nest bricks are recommended due to the increased lack of nesting opportunities swifts are finding in modern-built dwelling homes. These should be fitted in clusters of 2 to 4.

Badgers:

- The site provides low potential for badger due to limited suitable foraging and sett building habitat. The site has good connectivity to other suitable habitat in the immediate surrounds. However, there is no evidence to suggest badgers are currently present on site.
- No further surveys are necessary; however, if any badger setts are found throughout works, all works must stop, and advice sought.

Great Crested Newts (GCN):

- No evidence of GCN was found at the time of the survey. The site provides low potential for GCN due to the limited suitable terrestrial and aquatic habitat on site. The surrounding habitat offers some suitable commuting habitat for GCN. The site is located in a NatureSpace green zone which indicated a lower likelihood of GCN in the area.
- No further survey is necessary; however, if GCN are found on site, all works must stop, and advice sought.

Reptiles:

- No evidence of reptiles was found at the time of the survey. The site provides low potential for reptiles due to limited suitable habitat but some connectivity to other more suitable habitats. The introduced shrub habitat offers some suitable refuge for commuting reptiles; however, these offer limited connectivity around the site.
- No further survey is necessary; however, if reptiles are found on-site, all works must stop, and advice sought.

3.0 Mitigation Measures

Table 1: Mitigation Measures

Works	Specification
Timing of Works	Construction activities will be restricted to the normal working day (7am-7pm).
General Construction Activities	Heras fencing (or similar) will be installed around the perimeter of the construction zone to prevent any vehicle or construction encroachment onto habitats / species of ecological value. Any machinery used should be made safe or temporarily fenced off when not in use. Storage of construction materials will be kept to a minimum. Where materials must be stored, they will be restricted to inert objects and located on hardstanding away from hedgerows, ponds, badger sett. Materials will be stored on pallets to discourage animals from using them as shelter. Skip or similar containers may also be used in place of piles on the ground. Trenches or open excavations will be covered at the end of each working day, or include a means of escape such as a sloping ramp for any animals that may fall in. Any temporarily exposed open pipe systems or ducts will be capped at the end of each working day in such a way as to prevent animals from gaining access.
Lighting	A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures: • Use narrow spectrum light sources to lower the range of species affected by lighting. • Use light sources that emit minimal ultra-violet light. • Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin. • Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. • Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only. • External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on.

	Wall lights and security lights will be 'dimnable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.
Birds	Works to B1A and B2 and vegetation clearance should be undertaken outside the core nesting period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of B1A and B2 and vegetation should be undertaken, by the project ecologist or ECoW, within 48 hours prior to the commencement of work. All active nests will need to be retained with a species-appropriate buffer until the young have fledged (species specific but typically 4-6 weeks).

4.0 Provision of New Landscaping and Species-Specific Enhancements

Table 2: Provision of New Landscaping and Species-Specific Enhancements

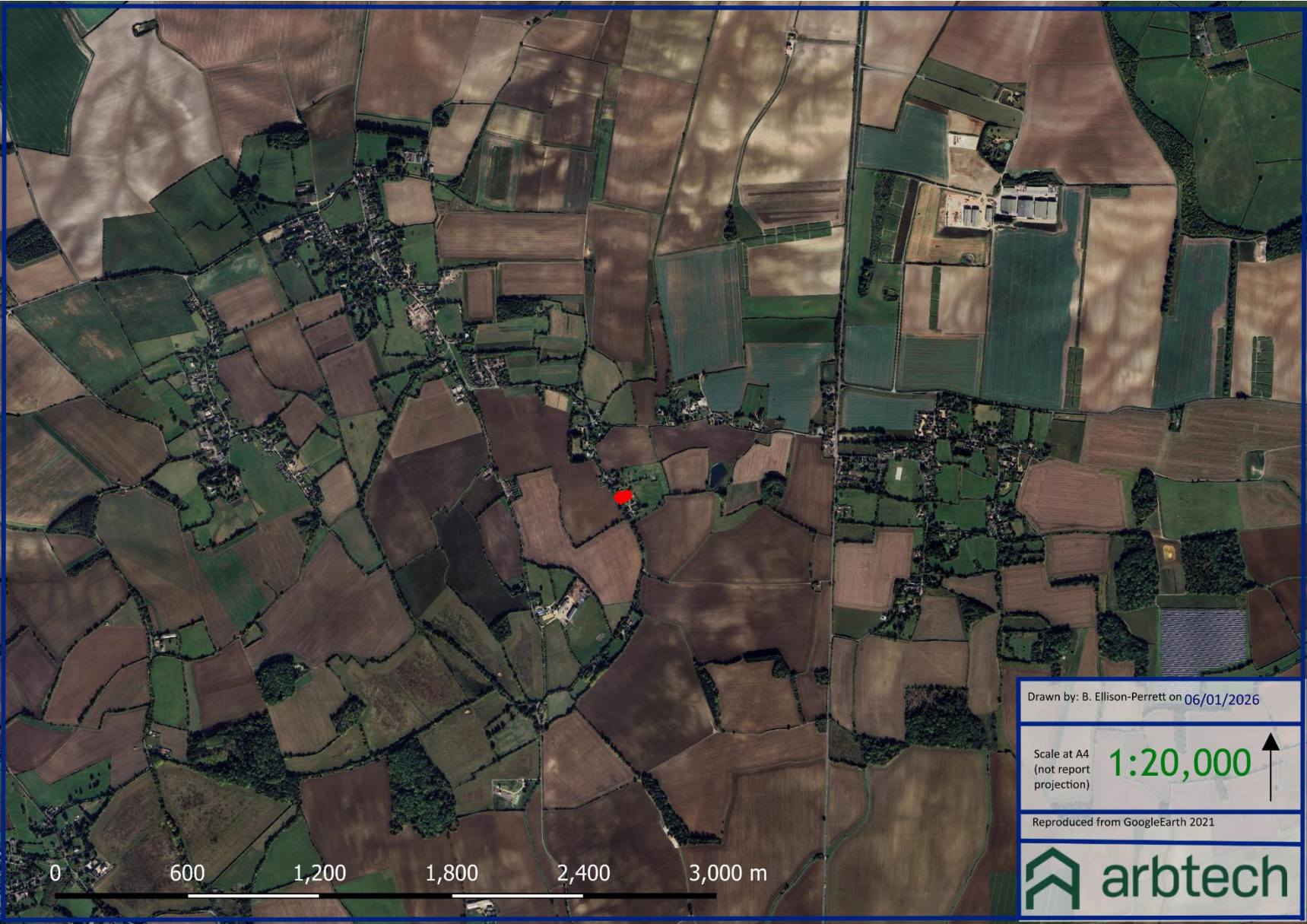
Works	Specification
Management Term	The management prescriptions outlined within this table must be implemented over a period of at least 30 years.
Bird Boxes	Two bird boxes are recommended to be installed on site, integrated into the façade of the building. Bird box specification: - The recommended bird boxes will be constructed of woodcrete/ woodstone. Boxes of this construction are designed to require no maintenance and a lifespan of 25 years plus. 2x Manthorpe Swift Brick (or a similar alternative brand) is proposed integrated into the building, as shown in Figure 1. - Nest Boxes should be positioned approximately 3m-5m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. - The Swift bricks will be integrated into the gable end on the northern elevations of the building. They will be positioned at the eaves of the building. Figure 1: Manthorpe Swift Brick (image credit https://www.nhbs.com/Manthorpe Swift Brick) Recommended Management: The proposed bird boxes are designed to require no management or maintenance. Furthermore, preventing physical disturbance of bird boxes will increase the chances of occupation by nesting birds. However, it is recommended that the bird boxes are inspected annually for the first

	five years outside of the typical nesting bird season (March to September inclusive) following installation. Bird boxes must be replaced if they are damaged, removed, or have fallen from their recommended location.
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Appendix 1: Proposed Development Plan



Appendix 2: Site Location Plan



Appendix 3: Species-Specific Enhancements Plan

