



RIVERDALE ECOLOGY

Preliminary Ecological Appraisal

Home Farm, Walsham Le Willows, Suffolk

May 2023

Registered Office

60 Norwich Road

Stoke Holy Cross

Norwich, NR14 8NX

Norwich Office

Office 14, Ber Street Central

125 Ber Street

Norwich, NR1 3EY



RIVERDALE ECOLOGY

Report For: Home Farm
West Street
Walsham Le Willows
Bury St Edmunds
Suffolk IP31 3AP

Report Version	Author	Reviewed By	Comments	Date
FINAL	Danny Thomas CEcol MCIEEM	Dr A S Thomas PhD	Issued for Comment	15/05/2023

LIABILITY

This report is prepared by Riverdale Ecology Limited for the sole and exclusive use of the commissioning party in response to their particular instructions. No liability is accepted for any costs claims or losses arising from the use of this report or any part thereof for any purpose other than that for which it was specifically prepared or by any party other than the commissioning party named within the report.

COPYRIGHT

© This report is the copyright of Riverdale Ecology Limited. Any unauthorised reproduction or usage by any person is prohibited.

Contents

Executive Summary.....	1
1 Introduction.....	3
1.1 Background to Commission	3
1.2 Scope of Report.....	3
1.3 Site Description and Context	3
1.4 Project Overview	3
1.5 Relevant Legislation and Planning Policy	4
2 Methodology	5
2.1 Desk Study	5
2.2 Extended Phase 1 Habitat Survey.....	5
2.3 Protected Species.....	5
2.4 Bat Preliminary Roost Assessment (PRA) – Buildings.....	6
2.5 Preliminary (Ground Level) Tree Bat Roost Assessment.....	7
2.6 Great Crested Newt Habitat Suitability Index (HSI).....	7
2.7 Great Crested Newt eDNA.....	8
2.8 Site Evaluation	8
2.9 Survey and Assessment Limitations	8
3 Results.....	9
3.1 Desk Study	9
3.2 Habitat Survey	10
3.3 Protected Species.....	11
4 Discussion and Recommendations.....	14
4.1 Nature Conservation Evaluation.....	14
4.2 Constraints and Mitigation/Compensation.....	14
4.3 Ecological Enhancement	14
5 References	16

Appendices

Appendix 1 – Site Plans

Appendix 2 – Photographs

Appendix 3 – Legislation



Executive Summary

Riverdale Ecology Ltd were commissioned by Tim Gudgeon on behalf of his client to undertake a Preliminary Ecological Appraisal (PEA) of a potential development site located at Home Farm, West Street, Walsham Le Willows, Bury St Edmunds, Suffolk, IP31 3AP situated around Ordnance Survey Grid Reference TL 98641 70873. The appraisal was carried out in order to inform a Class Q General Permitted Development Order (GDPO) and subsequent planning application for the conversion of an existing agricultural barn to residential dwelling.

The Application Site is approximately 0.3 hectares in area comprising a barn and associated adjacent land situated at Home Farm, Walsham Le Willows, a village in Suffolk approximately 12km northeast of Bury St Edmunds within the administrative area for Babergh and Mid-Suffolk Councils. The site is situated in a very rural landscape comprising arable fields with small pockets of woodland interconnected by field hedgerows.

The proposal is for the conversion of the barn to a single residential dwelling with the surrounding land to be used as garden.

The intrinsic value of the habitats on-site within a defined geographic context is generally considered to be of importance at site level only. The habitats within the development footprint have low ecological value and are generally common and widespread existing locally in both larger area and higher quality to the site. They have some limited value as habitat for wildlife, but any loss of habitat from within the site would be unlikely to affect the overall assemblage of species or the conservation status of any individual species beyond the context of the site.

The following ecological constraints have been identified within the site:

- There is suitable nesting habitat for common and widespread bird species within the boundary scrub and trees. Birds may also find nesting opportunities amongst materials stored in a lean to on the east side of the barn.
- There are ponds located within 250m of the site, however, an eDNA analysis taken from the pond adjacent to the site was negative for great crested newts.
- The site could support hedgehogs which are vulnerable to impacts from development.

No further surveys are recommended for any species or species group.

Mitigation measures recommended include:

- It is recommended that directional lighting is used to avoid illuminating habitat which could be utilised by bats. Of particular importance for this development site is to avoid light spill across the northern site boundary where there is a treeline in the neighbouring property which provides opportunities for commuting and foraging bats. External lighting in the vicinity of these areas should be managed carefully and designed to avoid excessive light spill which could disrupt bats.
- Any clearance of suitable nesting vegetation should be undertaken outside of the bird nesting season (from 1st March to the 31st August, inclusive) where appropriate. If this is not possible a detailed inspection for nesting birds should be carried out by a suitably qualified ecologist no more than 48 hours prior to removal of vegetation capable of supporting nesting birds. Any active nests found must be retained with an appropriate buffer until young birds have fledged, and the nest is no longer in use. It should be noted that the nesting bird check is only appropriate for small areas of nesting habitat. It is not effective for widescale site clearance and should be avoided when clearing larger areas of habitat such as hedgerows and dense scrub; this type of large-scale clearance should be undertaken outside of the nesting season.
- Consideration should be given to hedgehogs during construction and hedgehog friendly features included into the design of the development.

Possible opportunities to enhance the wildlife potential, appropriate to this site, in line with NPPF policies to achieve NET GAIN in biodiversity through planning include:



Preliminary Ecological Appraisal

RIVERDALE ECOLOGY

- Appropriate soft landscaping is the most appropriate site-wide enhancement, using select native species and species of known wildlife value. A key point for many species groups is the need for insect prey, for bats and also for the chicks and fledglings of many birds. Thus, a range of native plant types should be planted to provide a diversity of resources across the seasons from spring to autumn (insects and their predators), and also fruit and berry producing species in autumn and winter (birds).
- Provision of bat boxes on the converted barn or any future replacement buildings would provide additional roost sites for a range of bat species within the site directly adjacent to a foraging resource. A combination of at least three integrated roost sites such as the Habibat Bat Box (001 or 003 models) should be included in any brick walls. Alternatively exterior boxes should be attached to the barn/dwelling which have similar function and longevity to woodcrete boxes, and which would provide suitable roosting conditions for many of the species recorded in the local area.
- The rural location of the development site could provide suitable nesting habitat for barn owls. Provision of a nest box for barn owls would offer a safe nesting and roosting site. The box should be installed on a mature tree or post, or even on the gable of the barn/new dwelling.

1 Introduction

1.1 Background to Commission

Riverdale Ecology Ltd were commissioned by Tim Gudgeon on behalf of his client to undertake a Preliminary Ecological Appraisal (PEA) of a potential development site located at Home Farm, West Street, Walsham Le Willows, Bury St Edmunds, Suffolk, IP31 3AP situated around Ordnance Survey Grid Reference TL 98641 70873. The appraisal was carried out in order to inform a Class Q General Permitted Development Order (GDPO) and subsequent planning application for the conversion of an existing agricultural barn to residential dwelling.

1.2 Scope of Report

The purpose of this PEA report is to establish the current biodiversity value of the site, to identify any potential ecological constraints or ecological impacts associated with the proposed development and provide recommendations for additional survey work to further evaluate any impacts that may risk contravention of legislation or policy relating to protected species and nature conservation. Where necessary, avoidance, mitigation/compensation and/or enhancement measures have been recommended to ensure compliance. It is based on the following information sources:

- A desk study of the site and within a 2km surrounding radius; and
- A Phase 1 Habitat Survey (JNCC, 2010) of the site boundary and immediate surrounds to map habitats and identify features with potential to support protected or otherwise notable species.

This report has been prepared with reference to best practice as published by the Chartered Institute for Ecology and Environmental Management (CIEEM, 2017) and to British Standard 42020:2013 (BSI, 2013). This report provides recommendations for enhancement of the site for biodiversity in line with the National Planning Policy Framework (NPPF) (Department of Communities and Local Government, 2019) and best practice guidelines.

The survey, assessment and report were conducted and written by Danny Thomas CEcol, MCIEEM, Principal Ecologist at Riverdale Ecology Ltd. Danny has over 19 years' experience within ecological consultancy and as such is suitably qualified to undertake habitat surveys and protected species assessments. He is a Chartered Ecologist and has a BSc (Hons) in Ecology with Biology and an MSc in Environmental Sciences from the University of East Anglia. He holds current Natural England survey licences for great crested newts, bats, dormice and water vole and has a Schedule 1 licence for several protected bird species including barn owl and Cetti's warbler.

1.3 Site Description and Context

The Application Site comprises a barn and associated adjacent land situated at Home Farm, Walsham Le Willows, a village in Suffolk approximately 12km northeast of Bury St Edmunds within the administrative area for Babergh and Mid-Suffolk Councils.

The Application Site is approximately 0.3 hectares in area comprising an existing barn with concrete yard and rough grassland and scrub adjacent. The site is situated in a very rural landscape comprising arable fields with small pockets of woodland interconnected by field hedgerows.

Plans of the site are included in Appendix 1 and Photographs are included in Appendix 2.

1.4 Project Overview

The proposal is for the conversion of the barn to a single residential dwelling with the surrounding land to be used as garden.

1.5 Relevant Legislation and Planning Policy

The following key pieces of nature conservation legislation are relevant to this appraisal:

- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (commonly referred to as the Habitats Regulations);
- Wildlife and Countryside Act 1981 (as amended); and
- Natural Environment and Rural Communities (NERC) Act 2006.
- The Environment Act 2021.

The National Planning Policy Framework (DfCLG, 2019) requires local authorities to avoid and minimise impacts on biodiversity and, where possible, to provide net gains in biodiversity when taking planning decisions:

“The planning system should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes and minimising impacts on biodiversity and providing net gains in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.”

To protect and enhance biodiversity and geodiversity, 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 biodiversity; wildlife corridors and steppingstones 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.”

When determining planning applications, local planning authorities should apply the following principles:

“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.”

“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,

“Developments whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”

A summary of relevant legislation and planning policy is provided in Appendix 3.

2 Methodology

2.1 Desk Study

A desk study was carried out to determine if any Statutory¹ land designations occur within 2km of the site; these were identified using the Multi-Agency Geographic Information for the Countryside website (www.magic.gov.uk).

Aerial photographs were reviewed to identify any habitats surrounding the site or wildlife corridors connecting the site to other habitats. Ordnance Survey maps, aerial photographs and the MAGIC website were used to identify the presence of water bodies within 250m of the site in order to establish if the land within the site could be used as terrestrial habitat for great crested newts. This species can use suitable terrestrial habitat up to 500m from a breeding pond although Natural England research report ENRR574 suggests that newts are likely to travel no more than 250m from ponds where suitable habitats for foraging, refuge and hibernation exist in immediate proximity (Cresswell, W. & Whitworth, R. 2004). The 250m zone was considered an appropriate distance for this assessment based on the size of the proposed development site and the nature of the development.

Information relating to the location of non-Statutory² wildlife sites and records of protected³ or otherwise notable⁴ species was obtained from Suffolk Biodiversity Information Service (SBIS) within the site and up to 2km from the site boundary.

The status of species is taken directly from the relevant legislation, UK Biodiversity Action Plan (UK BAP, 2009), local (Suffolk) BAP or the list of Birds of Conservation Concern 5 (Stanbury et al., 2021). The red and amber lists of Birds of Conservation Concern refer to bird species of particular conservation concern for a number of reasons. In general terms, red list species are globally threatened showing severe recent declines in population. Amber list species are species either with unfavourable conservation status or those species showing moderate recent declines in population; they may also include particularly localised species.

2.2 Extended Phase 1 Habitat Survey

A habitat survey of the site was carried out including any boundary features of interest. Habitats were described and mapped broadly in accordance with standard Phase 1 Habitat survey methodology (JNCC, 2010). Habitats were also assessed against Habitat of Principal Importance (HPI) criteria as set out by the JNCC (<http://jncc.defra.gov.uk/page-5706>).

Scientific names are given for vascular plant species only, following their first mention, thereafter common names only are used. Nomenclature for vascular plants follows Stace (2010). Incidental records of birds and other fauna noted during the course of the habitat survey were also compiled.

The presence of invasive or injurious plant species as defined by Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended) was also recorded.

2.3 Protected Species

The habitats were assessed for their potential to support legally protected species using a combination of the desk study information and field observations carried out during the habitat survey. The assessment was based on

¹ **Statutory designations** include Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, National Nature Reserves (NNR), Sites of Special Scientific Interest (SSSI) and Local Nature Reserves (LNR).

² **Non-statutory sites** are designated by local authorities and protected through the planning process (e.g., County Wildlife Sites, Sites of Importance for Nature Conservation or Local Wildlife Sites).

³ **Legally protected species** include those listed in Schedules 1, 5 or 8 of the Wildlife and Countryside Act 1981; Schedule 2 of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019; or in the Protection of Badgers Act 1992 (as amended).

⁴ **Notable species** include Species of Principal Importance under the Natural Environment and Rural Communities Act 2006; Local Biodiversity Action Plan (LBAP) species; Birds of Conservation Concern (Eaton *et al.*, 2009); and/or Red Data Book/nationally notable species (JNCC, undated).

professional judgement and best practice survey guidance methodology for identifying field signs of protected species including but not limited to: badger (e.g. Roper, 2010); bats (Hundt, L. 2012, Collins, J. (ed) 2016, Mitchell-Jones, A. 2004, Andrews, H. 2018); hazel dormouse (English Nature, 2006); great crested newt (Langton et al, 2001; English Nature, 2001; Cresswell & Whitworth 2004); reptiles (Gent and Gibson, 2003); barn owl (Shawyer, 1998); and UK BAP Mammals (Cresswell et al, 2012). The potential for protected species presence was based on the following criteria:

- **Present** – Confirmed presence through first-hand survey evidence or recent verified records.
- **High Potential** – Local records highlight presence in the local vicinity. The site and immediate surrounds support good quality habitat or good connectivity to such habitat.
- **Moderate Potential** – Habitat within the site provides key elements for any species or species group although may be limited by factors including habitat area, isolation or disturbance. Desk study records highlight presence in proximity to site.
- **Low Potential** – On-site habitat is of low quality for any species or species group, lacking key elements and limited by factors including habitat fragmentation and habitat area. Few or absence of local records but within national distribution and thus cannot be completely discounted.
- **Negligible Potential** – Habitats within the site are very poor quality or completely absent for any species or species group. Desk study records are absent, the site is outside of the normal range of the species or species group and the surrounding habitat is unlikely to support wider populations. Presence cannot be completely ruled out, but it is considered ‘reasonably unlikely’ to support any species or species group.

The findings of this assessment establish any requirement for targeted protected species surveys that may be required to achieve compliance with relevant legislation. Surveys may be required where a site is judged to be of low suitability for a particular species or species group, alternatively it may be more appropriate to ensure compliance with protected species legislation through precautionary measures prior to and during construction.

Specific features within the site with potential to support protected species such as buildings and trees which may support bat roosts, waterbodies which may support water vole, otters and white-clawed crayfish and ponds which may support great crested newts will be superficially assessed to determine potential but further surveys may be required if potential is identified.

2.4 Bat Preliminary Roost Assessment (PRA) – Buildings

A Preliminary Roost Assessment (PRA) survey of the building on site was undertaken in accordance with best practice guidelines for assessing roost potential of structures (Collins, J. (ed.) 2016; Hundt, L. 2012; Mitchell-Jones & McLeish, 2004).

The survey comprised a detailed external and internal inspection of the structure to identify Potential Roost Features (PRFs), and potential bat access points into the barn.

External Building Inspection

A systematic search of the external structure of the building was carried out to identify potential or actual bat access points and roosting places and to locate any evidence of bats. The inspection included a thorough search of the ground near the structures, particularly focussed below potential access points, and other flat surfaces such as windowsills, windowpanes and walls. Ladders were used for access to allow close inspection with a digital endoscope of suitable access points or roost locations behind lifted rendering, hanging tiles, weatherboarding, eaves, soffit boxes, fascias, lead flashing, gaps under felt and corrugated roofing sheets and gaps under tiles or slates. Any gaps in brickwork or stonework were also identified and closely inspected for any evidence of bats and to determine if they were suitable for roosting or provided access to suitable roost cavities.

Internal Building Inspection

A systematic search of the internal structure of the building was carried out to identify further any actual or potential access points and roosting places and to locate evidence of bat activity. Bat specimens (alive or dead) and droppings are the two most reliable forms of evidence. Other evidence is less conspicuous and includes urine splashes, fur-oil staining, feeding remains (moth wings), odour and audible clues of roosts such as squeaking from inside roosts.

2.5 Preliminary (Ground Level) Tree Bat Roost Assessment

A Preliminary Roost Assessment (PRA) survey of any trees within the site boundary was undertaken in accordance with best practice guidelines for assessing roost potential of trees (Collins, J. (ed.) 2016; Hundt, L. 2012, Andrews, H. 2018).

The survey comprised a systematic and detailed inspection of the exterior of the tree from ground level to search for Potential Roost Features (PRFs) which could be utilised by bats for roosting. The survey comprised a description of the physical characteristics of the tree alongside identification of any PRFs or evidence of roosting bats. PRFs found in trees include woodpecker holes; rot holes; vertical or horizontal cracks or splits in limbs; partially detached or loose bark; epicormic growth; enclosed gaps between overlapping stems or branches; and dense ivy with stem diameter in excess of 50mm.

2.6 Great Crested Newt Habitat Suitability Index (HSI)

Accessible ponds within 250m of the Application Site were assessed using the Habitat Suitability Index (HSI) methodology (Oldham et al., 2000). The HSI of a pond is determined by calculating a geometric mean of ten variables that are known to have an influence on its suitability as a breeding location for great crested newts (see Table 1), thus:

$$HSI = (SI1 \times SI2 \times SI3 \times SI4 \times SI5 \times SI6 \times SI7 \times SI8 \times SI9 \times SI10)^{1/10}$$

Table 1: HSI parameters.

Parameter	Name	Description
SI1	Geographic Location	Lowland England or upland England, Scotland and Wales
SI2	Pond area	To the nearest 50m ²
SI3	Permanence	Number of years' pond dry out of ten
SI4	Water quality	Measured by invertebrate diversity
SI5	Shade	Percentage shading of pond edge at least 1m from shore
SI6	Fowl	Level of waterfowl use
SI7	Fish	Level of fish population
SI8	Pond count	Number of ponds within 1km ²
SI9	Terrestrial habitat	Quality of surrounding terrestrial habitat
SI10	Macrophytes	Percentage extent of macrophyte cover on pond surface

Once calculated, the HSI score for a waterbody can be categorised as follows (Oldham et al, 2010):

- Excellent (>0.8)
- Good (0.7 – 0.79)
- Average (0.6 – 0.69)
- Below Average (0.5 – 0.59)
- Poor (<0.5)

2.7 Great Crested Newt eDNA

eDNA is DNA collected from the environment in which an organism lives, rather than directly from the plants or animals themselves. In aquatic environments animals, such as great crested newts, shed cellular material into the water via reproduction, saliva, urine, faeces, skin cells, etc. This DNA will persist for several weeks and can be collected through a water sample which is then analysed to determine if the target species of interest have been present in the waterbody.

The method for eDNA survey was developed by The Freshwater Habitats Trust (FHT) and published in March 2014 (Biggs et al, 2014) and is accepted as a valid presence / absence technique by Natural England. Environmental DNA (eDNA) is nuclear or mitochondrial DNA that is released from an organism into the environment. In aquatic environments, eDNA is diluted and distributed in the water where it persists for 7–21 days, depending on the conditions. Recent research has shown that the DNA of a range of aquatic organisms can be detected in water samples at very low concentrations using qPCR (quantitative Polymerase Chain Reaction) methods.

Water samples were taken on 21st April 2023 within the approved period for sampling (15th April to 30th June). Water samples were collected by Danny Thomas, a great crested newt licence holder and an approved eDNA surveyor/trainer. The samples were sent to NatureMetrics Ltd, one of a handful of approved laboratories, and the samples were tested in accordance with Natural England's approved protocol (Biggs J., *et al.* 2014).

2.8 Site Evaluation

An evaluation of the site was carried out in general accordance with guidance issued by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2019) which ranks the nature conservation value of a site according to a geographic scale of reference: International/ European, National, Regional, Metropolitan, County, vice-county or other local authority-wide area, or of value at the Local scale or just within the context of the site.

In evaluating the nature conservation value of the site, the following factors were considered: nature conservation designations, rarity, naturalness, fragility, connectivity and relevant nature conservation aims and objectives for a given area as contained in national and local biodiversity action plans and planning policies.

2.9 Survey and Assessment Limitations

The data and conclusions presented here are an evidence-based assessment of the current status of the application site and should not be taken as providing a full and definitive survey of any protected species group. The results of this ecological assessment have allowed an evaluation of the likely ecological constraints to the proposed development and are considered sufficient to inform the need for further ecological survey and mitigation measures.

Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour. Therefore, the absence of evidence of any particular species should not be taken as conclusive proof that the species is not present or that it will not be present in the future.



3 Results

3.1 Desk Study

Statutory Sites for Nature Conservation

There is one statutory site for nature conservation within 2km of the site:

Stanton Woods Site of Special Scientific Interest (SSSI)

Stanton Woods SSSI is located approximately 1.7km west of the Application Site. This SSSI is a series of ancient coppice-with-standards woods and spans the transition from hornbeam *Carpinus betulus* and Oak-Ash-Hazel-Maple woodland on boulder clay to Oak/Hazel woodland on the drier, acid soil of the Breckland margin. The two types of woodland each have characteristic woodland flora plants and additional interest is provided by a series of wide, mown rides, small clearings and areas of active coppice management. The Grundle (one of the component woods) provides a rare example in West Suffolk of a wooded gorge.

Non-Statutory Sites for Nature Conservation

There are two non-statutory County Wildlife Sites (CWS) within 2km of the site boundary these are discussed in detail in Table 2 below:

Table 2: Non-Statutory Sites within 2km of Site Boundary.

Site Name	Distance from site and Orientation	Reason for Designation
Mid Suffolk 182: RNR 156	470m North	This CWS is a Roadside Nature Reserve (RNR) designated for the presence of adder's-tongue fern <i>Ophioglossum vulgatum</i> .
Mid Suffolk 95: Stowlangtoft and Langham Thicks CWS		Stowlangtoft and Langham Thicks is an area of ancient woodland which lies to the east of Kiln Lane and the Stowlangtoft Estate and is listed in the Inventory of Ancient Woodland compiled by Natural England. The Thicks is an ash <i>Fraxinus excelsior</i> /field maple <i>Acer campestre</i> wood with abundant oak <i>Quercus robur</i> standards and an understorey of dense hazel <i>Corylus avellana</i> coppice. Planted Scots pines <i>Pinus sylvestris</i> are scattered throughout. A public footpath runs through the wood where wood anemone <i>Anemone nemorosa</i> , primrose <i>Primula vulgaris</i> and early-purple orchid <i>Orchis mascula</i> are recorded. White admiral, bullfinch, skylark and yellowhammer have been recorded on the adjacent land and brown hare and lesser spotted woodpecker are seen using the woods.

The proposed development site is not subject to any statutory or non-statutory nature conservation designations and does not contain equivalent habitat that could be considered as functionally linked to any nature conservation sites.

In addition, the site is not located in proximity to any statutory or non-statutory designated site where the development could result in direct impacts to any designated site. The site is very small, and the development is relatively minor so any impacts resulting from the proposed development are anticipated to be localised and are not expected to extend beyond the redline site boundary. As such, it is reasonable to conclude that the proposed development will have no detrimental effect on any statutory or non-statutory sites.

3.2 Habitat Survey

Summary

The habitat survey was carried out on 26th January 2023 in appropriate weather conditions.

The site comprises a medium sized barn situated on a concrete yard, with a strip of rough grassland, tall herb vegetation and scrub adjacent. The site is bounded to the north by a small drainage ditch and to the east is an arable field. Existing dwellings are situated to the west and south. Access to the site is via an existing gravel driveway.

A Phase 1 Habitat Plan is included in Appendix 1.

Buildings and hardstanding

The principal component of the Application Site is the existing barn (Appendix 2, Photograph 1). The barn is moderate in size at approximately 25m long and 20m wide. It is a relatively modern, metal framed barn with a concrete block half-wall supporting cement board or asbestos sheeting above. The roof is pitched, supporting additional concrete boarding. On the eastern side of the barn is a small open-sided lean-to. The barn is accessed via large metal double doors on the southern elevation.

In the southwest corner of the barn is a small timber mezzanine used for storage with a workshop beneath. The remaining interior space is fully open and used for agricultural storage (Appendix 2, Photograph 2).

The barn is situated on a large concrete pad which extends to form a yard to the south and east of the barn.

Grassland

On the eastern side of the concrete yard is a strip of roughly mown semi-improved grassland comprising typical coarse grass species (Appendix 2, Photograph 3) including cock's foot *Dactylis glomerata*, perennial ryegrass *Lolium perenne*, Yorkshire fog *Holcus lanatus*, red fescue *Festuca rubra* and meadow grass *Poa spp.* Flowering forbs are frequent and include creeping buttercup *Ranunculus repens*, dandelion *Taraxacum officinale*, dove's foot cranesbill *Geranium molle*, black medic *Medicago lupulina*, ragwort *Jacobaea vulgaris*, daisy *Bellis perennis*, bristly oxtongue *Helminthotheca echinoides*, spear thistle *Cirsium vulgare*, cleavers *Galium aparine*, dock *Rumex obtusifolius*, nettles *Urtica dioica* and willowherb *Epilobium spp.*

On the western side of the barn the site includes a strip of mown improved grassland managed as lawn. The improved grassland is dominated by perennial ryegrass with nettles, creeping thistle *Cirsium arvense*, spear thistle, Canadian fleabane *Erigeron canadensis*, coltsfoot *Tussilago farfara* and ragwort.

Tall herbs and nettles

To the rear (north) of the barn is a strip dominated by tall herbs and nettles adjacent to a small drainage ditch (Appendix 2, Photograph 4).

Scrub

A small area of dense scrub is present in the northeast corner of the site around a dilapidated shed (Appendix 2, Photograph 5). Species include bramble *Rubus fruticosus agg.*, dogwood *Cornus sanguinea* and hawthorn *Crataegus monogyna*.

Offsite habitats

There are three ponds shown on OS maps within 250m of the Application Site:

Pond 1 is located in the neighbouring property just to the north of the Application Site (Appendix 2 Photograph 6).

Pond 2 is located approximately 55m northwest of the site on the opposite side of West Street.

Pond 3 is located approximately 175m southwest of the Application Site.

3.3 Protected Species

Bats

There were 14 individual records comprising six species of bats within 2km of the site returned in the SBIS data search. Species recorded include noctule, serotine, Natterer's bat, soprano pipistrelle, common pipistrelle and brown long-eared bat. The low numbers of records are most likely due to under-reporting rather than an absence of bats.

The existing barn has negligible potential for daytime roosting. The building lacks any suitable structure which might provide potential roost features with credible opportunities for roosting. There was no evidence of roosting discovered during the surveys.

There are no mature trees within the site which could support roosting bats and the habitats within the site have negligible value as foraging habitat for bats.

Great Crested Newts

There were six records of great crested newt returned within 2km of the site in the SBIS data search. The records are all confirmed breeding ponds located between 1.6km and 2km from the Application Site.

The habitat within the Application Site is considered suitable terrestrial habitat for great crested newts and is located within 50m of a pond. Due to the proximity of the pond to the Application Site, the grassland, scrub and tall herb vegetation would be considered immediate terrestrial habitat for great crested newts if they were present in the neighbouring pond. In addition, brash and rubble piles within the site could provide refuge and hibernation opportunities for great crested newts (TN1-TN3 on Phase 1 Habitat Plan).

Table 3: Great crested newt HSI results.

Criteria	Pond 1	Notes
Location	1.00	
Pond Area	0.28 (140m ²)	
Pond Drying	0.90 (Never)	
Water Quality	1.00 (Good)	Good invertebrate diversity
Overshading	1.00 (60%)	Overshaded to the east and south
Presence of Wildfowl	1.00 Absent	
Presence of Fish	0.67 (Possible)	
Pond Network	0.84 (2)	
Quality of Terrestrial Habitat	0.67 (Moderate)	
Macrophyte cover for egg laying	0.71 (40%)	Brooklime, water starwort.
HSI Score	0.76	
Categorisation of Habitat Suitability	Good	

Pond 1 achieved an HSI score of 0.76 placing it in the good category for suitability as a breeding pond for great crested newts. Due to the proximity of the pond to the barn and the likely construction footprint for conversion of the barn to residential dwelling there is potential that great crested newts could be affected by the development if they are present

within the neighbouring pond. The two more distant ponds would only be of consequence to the development if Pond 1 was shown to support great crested newts and a District Level License (DLL) was required prior to development of the site. These two more distant ponds have no credible habitat connectivity with the Application Site.

Due to the potential for great crested newts to be present within the site, a water sample was taken from the pond and sent for eDNA analysis at the approved NatureMetrics laboratory.

The analysis returned a negative result for great crested newt DNA providing conclusive evidence that great crested newts are not present within the pond and will therefore not be impacted by the proposed development. The eDNA analysis report from NatureMetrics is included in Appendix 4.

Birds

There were extensive records of bird species returned in the SBIS data search, comprising many common species as well as species of conservation concern and Schedule 1 listed species, including barn owl.

In general, the habitats within the site have negligible value to many of the key species of conservation concern identified in the data search.

The barn is inaccessible for barn owls and no evidence of barn owls was found during the site visit.

Bird species recorded on or adjacent to the site during the PEA site visit included woodpigeon, wren, robin, dunnoek, great spotted woodpecker, greenfinch, blue tit, goldfinch and great tit.

Suitable nesting habitat for common and widespread species exists in the patch of scrub and in amongst the stored materials and equipment in the lean-to section of the barn.

Reptiles

There were no records of any reptile species within 2km of the site returned in the SBIS data search.

The grassland within the site has low suitability for reptiles. There are some rough patches of grassland, but the area of habitat is small and generally isolated from other suitable habitat from which reptiles could have colonised the site. The mown grassland areas are unstable as the sward is uniform with no diversity of structure which would be of value as habitat for reptiles.

On this basis it is considered unlikely that any reptiles will be present within the site and will therefore not be affected by the proposed development.

Badger

There were no records of badgers within 2km of the site returned in the SBIS data search.

However, badgers are likely to be present locally as the wider countryside provides suitable habitat for foraging and sett construction.

The site itself only has very limited value as foraging habitat for badgers and lacks suitable habitat for sett creation. No evidence of badgers was identified within the site or up to 30m from the site boundary and there is no nearby woodland or dense hedgerows where badgers might excavate a sett.

As such it is unlikely that badgers utilise the site and therefore will not be affected by the proposed development.

Other protected species

There were two records of otter and four records of water vole within 2km of the site returned in the SBIS data search. However, the site contains no suitable aquatic habitat which would be of value to otters or water vole. The drainage ditch to the north of the barn is too small and contains very little water to be of any value to either species.



Preliminary Ecological Appraisal

RIVERDALE ECOLOGY

NERC Act SPI /Local or National BAP Species

The SBIS data search returned 32 individual records for European hedgehog, which is a Species of Principal Importance. Hedgehogs are likely to utilise the habitats within the Application Site; the grassland within the site and the boundary, scrub and tall herbs are likely to be of value as foraging habitat for hedgehogs. However, the change to a more manicured garden habitat is not likely to significantly affect hedgehogs which will routinely use residential gardens for foraging and refuge.

Providing that due consideration is given to hedgehogs during site clearance and construction, and that any new boundary fencing does not obstruct hedgehog passage then the proposed development is not likely to significantly affect the distribution or population of hedgehogs locally.



4 Discussion and Recommendations

4.1 Nature Conservation Evaluation

The intrinsic value of the habitats on-site within a defined geographic context is generally considered to be of importance at site level only. The habitats within the development footprint have low ecological value and are generally common and widespread existing locally in both larger area and higher quality to the site. They have some limited value as habitat for wildlife, but any loss of habitat from within the site would be unlikely to affect the overall assemblage of species or the conservation status of any individual species beyond the context of the site.

4.2 Constraints and Mitigation/Compensation

Bats

Bats are sensitive to artificial lighting which can disrupt the normal 24-hour pattern of light and dark and is likely to affect the natural behaviour of bats. Bright light may reduce social flight activity or restrict access to foraging areas causing bats to move away from the light area. Studies have shown that in extreme cases continuous lighting can sometimes create barriers which some bat species will not cross. Lighting can be particularly harmful if used near high value foraging and commuting habitat such as woodland edges, hedgerows or rivers.

It is recommended that directional lighting is used to avoid illuminating habitat which could be utilised by bats. Of particular importance for this development site is to avoid light spill across the northern site boundary where there is a treeline in the neighbouring property which provides opportunities for commuting and foraging bats. External lighting here should be managed carefully and designed to avoid excessive light spill which could disrupt bats.

Birds

Any clearance of suitable nesting vegetation should be undertaken outside of the bird nesting season (from 1st March to the 31st August, inclusive) where appropriate. If this is not possible a detailed inspection for nesting birds should be carried out by a suitably qualified ecologist no more than 48 hours prior to removal of vegetation capable of supporting nesting birds. Any active nests found must be retained with an appropriate buffer until young birds have fledged, and the nest is no longer in use. It should be noted that the nesting bird check is only appropriate for small areas of nesting habitat. It is not effective for widescale site clearance and should be avoided when clearing larger areas of habitat such as hedgerows and dense scrub present on this site; this type of large-scale clearance should be undertaken outside of the nesting season.

Hedgehogs

Consideration should be given to hedgehogs during construction and hedgehog friendly features included into the design of the development. Provision of woodpiles or a hedgehog house would provide necessary refuge for this species and the development should seek to reduce any potential fragmentation of habitats through the introduction of physical barriers to dispersal such as hardstanding, fences and artificial lighting.

4.3 Ecological Enhancement

The National Planning Policy Framework (NPPF) encourages developers to incorporate habitat enhancement measures into development projects with the aim of providing tangible benefits for wildlife and achieving no net loss or where possible an observed gain in biodiversity within an individual site. Where opportunities exist, an individual development may provide enhancements to biodiversity which contribute to wildlife and habitat connectivity in the wider area. Enhancements act to improve the quality of the habitat for the flora and fauna on and within the vicinity of the site, although these enhancements may also provide aesthetic appeal.



Possible opportunities to enhance the wildlife potential, appropriate to this site, are provided below. It is important that any measures adopted be clearly demonstrated to the Planning Authority through inclusion in design plans and accompanying documentation.

- Appropriate soft landscaping is the most appropriate site-wide enhancement, using select native species and species of known wildlife value. A key point for many species groups is the need for insect prey, for bats and also for the chicks and fledglings of many birds. Thus, a range of native plant types should be planted to provide a diversity of resources across the seasons from spring to autumn (insects and their predators), and also fruit and berry producing species in autumn and winter (birds).
- Provision of bat boxes on the converted barn or any future replacement buildings would provide additional roost sites for a range of bat species within the site directly adjacent to a foraging resource. A combination of at least three integrated roost sites such as the Habibat Bat Box (001 or 003 models) should be included in any brick walls. Alternatively exterior boxes should be attached to the barn/dwelling which have similar function and longevity to woodcrete boxes, and which would provide suitable roosting conditions for many of the species recorded in the local area.
- The rural location of the development site could provide suitable nesting habitat for barn owls. Provision of a nest box for barn owls would offer a safe nesting and roosting site. The box should be installed on a mature tree or post, or even on the gable of the barn/new dwelling.

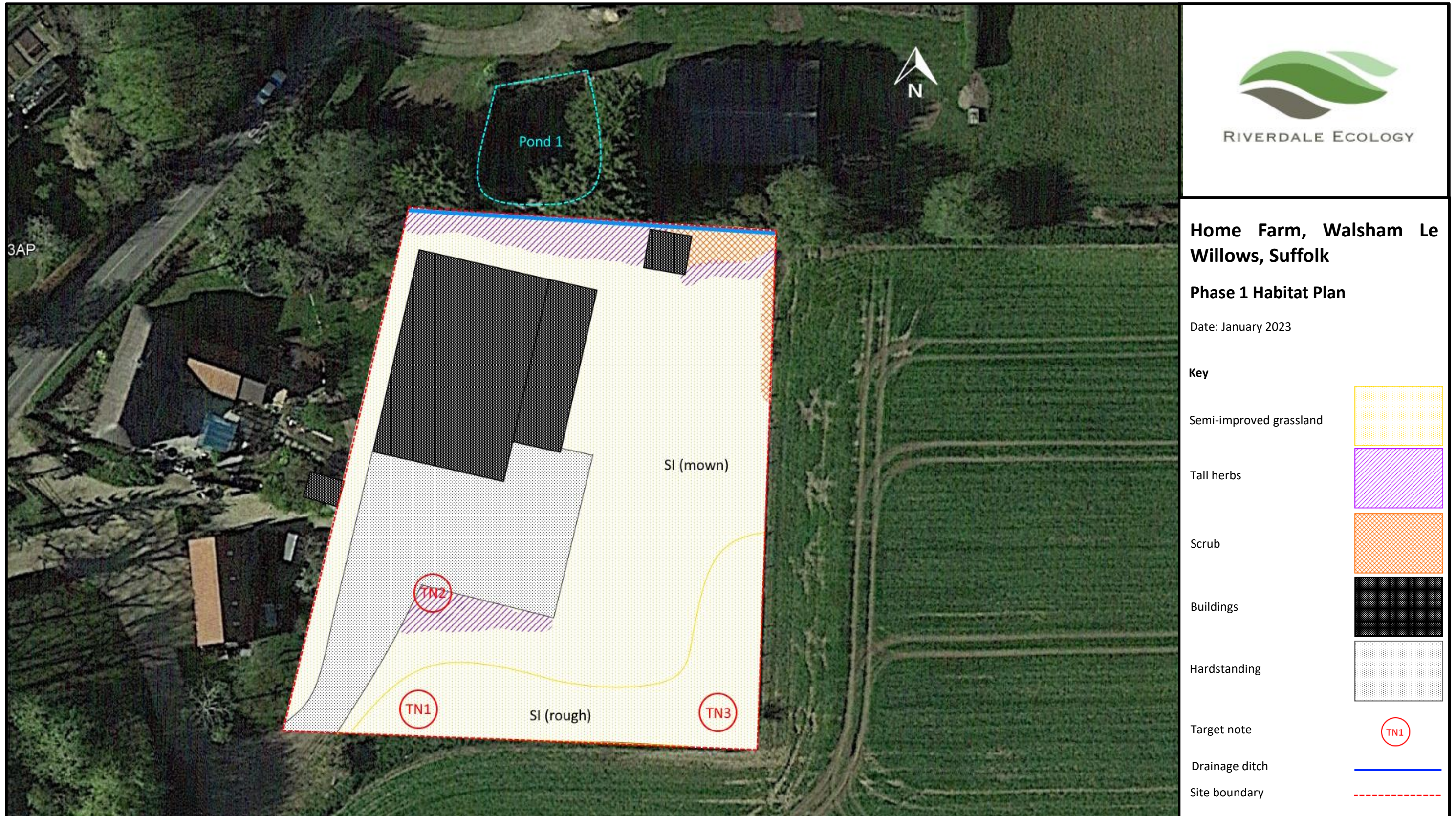
5 References

- Andrews, H. (2018) *Bat Roosts in Trees: A guide to identification and assessment for tree-care and ecology professionals*. Pelagic Publishing. Exeter.
- British Standards Institution (2013). *Biodiversity. Code of practice for planning and development: 42020*. BSI. London
- CIEEM (2019) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 3rd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.
- CIEEM. (2017). *Guidelines for Preliminary Ecological Appraisal*. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)*. The Bat Conservation Trust, London.
- Cresswell, W. & Whitworth, R. (2004), 'An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt *Triturus cristatus*'. English Nature Research Report (ENRR) Number 576. Natural England. Peterborough.
- English Nature (2001) *Great Crested Newt Mitigation Guidelines*. Natural England. Peterborough
- English Nature (2006). *The Dormouse Conservation Handbook*. 2nd Edition. Natural England. Peterborough.
- Hundt, L (2012) *Bat Surveys: Good Practice Guidelines, 2nd Edition*. Bat Conservation Trust, London.
- Gent, T. and Gibson, S. (2003). *Herpetofauna Workers Manual*. JNCC. Peterborough.
- Joint Nature Conservation Committee (2003). *Handbook for Phase 1 Habitat Survey - a Technique for Environmental Audit* (revised reprint). Joint Nature Conservation Committee, Peterborough.
- Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001), *Great Crested Newt Conservation. Handbook*, Froglife, Halesworth.
- MAGIC (2015). *Multi-Agency Geographic Information for the Countryside*. [On-line]. Available from www.magic.gov.uk
- Mitchell-Jones, A.J. & McLeish, A.P. (2004) *The Bat Workers' Manual 3rd Edition*. Joint Nature Conservation Committee, Peterborough.
- Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)*. **Herpetological Journal** **10**, 4, 143-155.
- Roper, T.J. (2010). *Badger*. Harper Collins.
- Stace, C.A. (2010). *New Flora of the British Isles* (3rd Ed.). Cambridge University Press, Cambridge.
- Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. (2021) *The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain*. *British Birds* 114: 723-747. Available online at <https://britishbirds.co.uk/content/status-our-bird-populations>.



Appendix 1: Site Plans

Figure 1: Phase 1 Habitat Plan





Appendix 2: Photographs



Photograph 1.
Barn for residential conversion.



Photograph 2.
View of the barn interior.



Photograph 3.
Recent renovation of the barn including cavity wall, new block wall and brick wall.



Photograph 4.
Drainage ditch and tall herbs to north of barn.



Photograph 5.
Scrub on northern site boundary around dilapidated shed.



Photograph 6.
Pond 1 located in neighbouring property.



Appendix 3: Legislation

Relevant Legislation

Please note: This section contains key details of legislation and planning policy applicable in England and Wales only (i.e. not including the Isle of Man, Scotland, Northern Ireland, the Republic of Ireland or the Channel Islands) and does not provide full details. It is provided for general guidance only. While every effort has been made to ensure accuracy, this section should not be relied upon as a definitive statement of the law. Further information can be obtained from the relevant authorities.

National Legislation: Species

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

The Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 provides safeguards for European Protected Sites and Species (as listed in the Habitats Directive) and was transferred directly into UK law, thereby continuing the same provision for European protected species, licensing requirements, and protected areas after leaving the European Union.

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 interpret the Birds Directive and Habitats Directive into English and Welsh law with appropriate amendments introduced following the removal of the UK from the European Union in January 2021.

Explanatory notes relating to species protected under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (which includes smooth snake, sand lizard, great crested newt and natterjack toad, all bat species, otter, dormouse and some plant species) are given below and consider the case in England only, with Natural England given as the appropriate nature conservation body. **These should be read in conjunction with the relevant species sections that follow.**

- In the legislation, the term ‘deliberate’ is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.
- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 does not define the act of ‘migration’ and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes, are also considered.
- In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets the following three ‘tests’:
 - (i) the action(s) is(are) necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment;
 - (ii) that there is no satisfactory alternative; and
 - (iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

The Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) is a fundamental piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the conservation of wild birds (EC Birds Directive) in Great Britain. Various amendments have been made to the Wildlife & Countryside Act 1981 including the Countryside and Rights of Way (CRoW) Act (2000).

Other Legislation

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Countryside and Rights of Way (CROW) Act 2000
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996.

Species and species groups that are protected or otherwise regulated under the aforementioned domestic and European legislation, and that are most likely to be affected by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds, dormouse, invasive plant species, otter, plants, red squirrel, water vole and white clawed crayfish.

Wild Mammals (Protection) Act 1996

Under the Wild Mammals (Protection) Act 1996 all wild mammals are protected against intentional acts of cruelty under the above legislation. It is an offence to:

- Mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example, operations near nests or burrows) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Bats

All species of bat are fully protected under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 which prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:
 - a) to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young;
 - (ii) to hibernate or migrate
 - b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Bats are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.



Implication for development works

For works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate), a European Protected Species Mitigation (EPSM) Licence, issued by the relevant countryside agency (e.g. Natural England), will be required. The licence is to allow derogation from the relevant legislation and to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Though there is no current case law the legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded de facto protection, for example, where it can be proven that removal of such features may have a major impact to maintaining the viability of a bat roost⁵.

Birds

With certain exceptions, all wild birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). Among other things, this makes it an offence to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy an egg of any wild bird;
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl, black redstart, hobby, bittern and kingfisher receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;
- Intentional or reckless disturbance of dependent young of such a bird.

Implication for development works

Works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests, in order to avoid breaching the Wildlife and Countryside Act 1981 (as amended). To reduce the likelihood of nest destruction in particular, work should be undertaken outside the main bird breeding season (March to September⁶). Where this is not achievable any areas of habitat suitable for birds must be thoroughly checked for nests prior to vegetation clearance.

Species of bird listed on Schedule 1 are additionally protected against disturbance during the breeding season. It will therefore be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not achievable, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Herpetofauna (Amphibians and Reptiles)

Through their inclusion EPS under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, the sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita* and great crested newt *Triturus cristatus*

5 Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected? Mammal News, No. 150. The Mammal Society, Southampton.

6 It should be noted that this is the main breeding period. Breeding activity may occur out of this period (depending on the particular species and geographical location of the site) and as such due care and attention should be given when undertaking potentially disturbing works at any time of year.



receive full protection. The pool frog *Pelophylax lessonae* is also afforded full protection under the same legislation. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of species listed on Schedule 2
- Deliberate disturbance of any Schedule 2 species as:
 - a) to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young;
 - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate
 - b) to affect significantly the local distribution or abundance of the species
- Deliberate taking or destroying of the eggs of a Schedule 2 species
- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

With the exception of the pool frog, these species are also currently listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). Species such as the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis* are listed in respect to Section 9(1) & (5). For these species, it is prohibited to:

- Intentionally (or recklessly in Scotland) kill or injure these species
- Sell, offer or expose for sale, possess or transport for purpose of sale these species, or any part thereof.

Common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Lissotriton vulgaris* and palmate newt *L. helveticus* are listed in respect to Section 9(5) only which affords them protection against:

- Sale, offering or exposing for sale, possession or transport for the purpose of sale.

Implication for development works

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect the breeding sites or resting places of those amphibian and reptile species protected under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (sand lizard, smooth snake, natterjack toad, great crested newt and pool frog). A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the Wildlife and Countryside Act 1981 (as amended).

Badger

Badgers *Meles meles* receive protection under The Protection of Badgers Act 1992 which consolidates the previous Badger Acts of 1973 and 1991. Under the Act it is an offence to:

- Wilfully kill, injure, take, or, in England and Wales only, attempt to kill, injure or take a badger

Preliminary Ecological Appraisal

- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett or any part thereof
- Intentionally or recklessly disturb a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett
- Sell or offers for sale, possesses or has under his control, a live badger

Implication for development works

A Development Licence is required from the relevant countryside agency (e.g. Natural England, Natural Resources Wales or Scottish Natural Heritage) for any development works liable to affect an active badger sett, or to disturb badgers whilst in the sett. In Wales, the Welsh Government is responsible for issuing licences in relation to agricultural and forestry operations or works to maintain or improve any existing watercourse or drainage works, or to construct new works required for the drainage of land, including works of defence against seawater or tidal water.

Depending on the nature of the works and the specifics of the sett and its environment, badgers could be disturbed by work near the sett even if there is no direct interference or damage to the sett itself. The countryside agencies have issued guidelines on what constitutes a licensable activity. N.B. there is no provision in law for the capture of badgers for development purposes and therefore it is not possible to obtain a licence to translocate badgers from one area to another.

Invasive Plant Species

Certain species of plant, including Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera* are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Such species are generally non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to plant or otherwise cause these species to grow in the wild.

Implication for development works

Although it is not an offence to have these plants on your land, it is an offence to cause these species to grow in the wild. Therefore, if they are present on site and development activities (for example movement of spoil, disposal of cut waste or vehicular movements) have the potential to cause the further spread of these species to new areas, it will be necessary to ensure appropriate measures to prevent this prior to the commencement of works.

International and National Legislation: Habitats

Statutory Designations: International

Special Protection Areas (SPAs) and Special Areas of Conservation (SACs)

Special Protection Areas (SPAs), together with Special Areas of Conservation (SACs) form the Natura 2000 network in Europe (National Site Network in the UK). The Government was obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds) and these sites have been retained within UK law despite the removal of the UK from the European Union via The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

- **Special Protection Areas** are areas of the most important habitat for rare (listed on Annex I of the Directive) and migratory birds within the UK and Europe. Protection afforded SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles (nm) is given by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SPAs in UK offshore waters (from 12-200 nautical miles (nm)).

Preliminary Ecological Appraisal

- **Special Areas of Conservation** are areas which have been identified as best representing the range and variety of key habitats and rare (non-bird) species listed on Annexes I and II of the Directive. The Government is still obliged to identify and designate SACs under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 whereby the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) was incorporated fully into the UK legislation despite the removal of the UK from the European Union. SACs in terrestrial areas and territorial marine waters out to 12 nm are protected under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SACs in UK offshore waters (from 12-200 nm).

Ramsar sites

Ramsar sites are designated under the Convention on Wetlands of International Importance. The Convention provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources, in particular it recognises wetlands as ecosystems that are globally important for biodiversity conservation. Wetlands can include areas of marsh, fen, peatland or water and may be natural or artificial, permanent or temporary. Wetlands may also incorporate riparian and coastal zones adjacent to the wetlands. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites which have been designated under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. (e.g. SACs & SPAs).

Statutory Designations: National

Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNR)

Sites of Special Scientific Interest are nationally important areas of special scientific interest, designated for their flora, fauna, or geological or physiographical features, under the National Sites and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). National Nature Reserves are declared by the countryside agencies under the same legislation. As well as underpinning other national designations the system also provides statutory protection for terrestrial and coastal sites which are important within a European context (National Site Network) and globally (such as Wetlands of International Importance). See subsequent sections for details of these designations. Improved provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).

Statutory Designations: County

Local Nature Reserves (LNRs)

LNRs are statutory sites of lower conservation value designated under national legislation. LNR designation is declared for sites holding special wildlife or geological interest at a local level and are managed for nature conservation and provide opportunities for research and education and enjoyment of nature.

Non-Statutory Designations

Non-statutory sites designated under local legislation are areas considered to be of local conservation interest. These may be designated by local authorities as **Local Wildlife Sites (LWS)**, also known as **County Wildlife Sites (CWS)**, **Local Nature Conservation Sites (LNCS)**, **Sites of Biological Importance (SBIs)** or **Sites of Importance for Nature Conservation (SINCS)**. May vary between counties.

Together with the statutory designations, these are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined. The criteria for designation and the level of protection afforded to these sites through local planning policies and development frameworks may vary between counties.

National Planning Policy

The National Planning Policy Framework (NPPF)



The National Planning Policy Framework (NPPF) replaced Planning Policy Statement (PPS9) in April 2012 as the key national planning policy concerning nature conservation. The NPPF emphasises the need for suitable development and specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species – those listed as UK Biodiversity Action Plan priority species – is also listed as a requirement of planning policy. The NPPF was updated in February 2019 and now includes a presumption in favour of providing a **net gain** in biodiversity as opposed to a ‘no net loss’ as was previously the policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that:

- Designated sites are protected from adverse harm;
- Planning permission is refused where significant harm from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for;
- Opportunities to incorporate biodiversity in and around developments are required and a net gain in biodiversity through enhancement during development is now expected;
- Planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland; and
- Protection should be given to biodiversity within areas designated for their landscape value to include 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 Natural Environment and Rural Communities (NERC) Act 2006, (as amended)

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 40 of the Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. The Act includes a list of habitats and species of ‘principal importance for the conservation of biodiversity’ in England. They are referred to in this report as **Species of Principal Importance and Habitats** or **Principal Importance**. Local Authorities are required to consider the needs of these habitats and species when making decisions such as on planning application. A developer must show that their protection has been adequately addressed within a development proposal.

Local Planning Authority’s planning policy

The Local Planning Authority has policies relating to biodiversity conservation. For details, please see the planning website for the relevant authority.

Regional and Local BAPs

Many local authorities in the UK have also produced a local Biodiversity Action Plan (LBAP) at the County or District level. For details, please see the planning website for the relevant authority.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are intended to protect ‘important’ countryside hedgerows from destruction or damage by controlling their removal through a system of notification. A hedgerow is considered important if it:

- has existed for 30 years or more; and
- satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Schedule 1 criteria are related to the presence of protected plants and animals, or a high diversity of woody species and other qualifying features, e.g. connectivity to other hedgerows, woodlands or ponds, and the presence of standard trees.

Under the Regulations, it is a criminal offence to remove or destroy certain hedgerows without permission from the local planning authority. Countryside hedgerows are defined as those on or adjoining:



Preliminary Ecological Appraisal

- common land;
- village greens;
- SSSIs (including all NNRs, SPAs and SACs);
- LNRs, and;
- land used for agriculture, forestry or the breeding or keeping of horses, ponies or donkeys are covered by these regulations.

Garden hedgerows, e.g. within or marking the boundary of the curtilage of a dwelling-house, are exempt from The Hedgerow Regulations.