

The Ecology Co-op

ENVIRONMENTAL CONSULTANTS

Unit 4, Langham Stables, Langham Lane, Lodsworth, Petworth, West Sussex, GU28 9BU.

Tel: 01798 861 800 – E-Mail: info@ecologyco-op.co.uk – Web: www.ecologyco-op.co.uk

Biodiversity Enhancement Strategy

Site Name

Greenacres Farm, Billinghamurst

Issue Date

1st July 2026

Client

Manorwood

Author

Louisa Philpott

Project No: 11147

The Ecology Co-operation Ltd

Registered Office: Unit 4, Langham Stables, Langham Lane, Lodsworth, West Sussex, GU28 9BU

Company number: 8905527





Document Control

Issue No	Author	Reviewer	Issue Date	Additions/alterations	Notes
Original	Louisa Philpott BA MSc Cert CM	Kate Priestman MCIEEM, CEnv	29.06.26	N/A	
REV A	Louisa Philpott BA MSc Cert CM	Emma Baker BSc (Hons), MSc, MCIEEM	01.07.2026	Revised to show new plot design and landscape plans.	

Conditions of use

This report has been prepared by The Ecology Co-operation Ltd, with all reasonable skill, care and diligence within the terms of the Contract with the client. This report only becomes the property of the client once payment for it has been received in full.

We disclaim responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client, and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

About the Author

This report has been prepared by Louisa Philpott, a Consultant Ecologist at The Ecology Co-op. She has over 30 years' experience in masterplanning, a master's in Architecture and Environment and a Certificate in Conservation Management.

About the Reviewer

This report has been reviewed by Kate Priestman, who is a Principal Ecologist with over twenty years' experience. Kate has undertaken extensive survey work and reporting, encompassing a breadth of deliverables, and prepared European Protected Species licences for numerous schemes. As a Full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and a Chartered Environmentalist (CEnv), she is bound by CIEEM's code of professional conduct.

This report has been reviewed by Emma Baker, who is a Senior ecologist with nine years' experience. She holds Level 1 great crested newt and hazel dormice survey licences. As a Full member of the Chartered Institute for Ecology and Environmental Management (CIEEM), she is bound by their code of professional conduct.



Report Summary

Purpose	The Ecology Co-operation was commissioned by Manorwood to provide a Biodiversity Enhancement Strategy (BES) with regards to a proposal for pitches associated with two mobile homes and two stables at Greenacres Farm, Billingham. This document outlines site-wide mitigation for habitats and protected species as well as targeted enhancement measures. It also includes management objectives, responsibilities and maintenance schedules including remedial responsibilities, should they be necessary. It will be submitted to Horsham District Council in order to discharge condition no. 72 of the approved planning application appeal: APP/Z3825/C/25/3375764.
Context	A retrospective Preliminary Ecological Appraisal (PEA) of the site was undertaken in November 2025 by The Ecology Co-op, following the addition of two new mobile homes with associated areas of hardstanding, gated access points, gardens and horse paddocks. The PEA identified that the development completed at Greenacres Farm has resulted in a permanent loss of modified grassland and bramble scrub and removed small sections of species-rich hedgerow. This has reduced opportunities for roosting bats, nesting birds, reptiles and great crested newts. No Phase 2 surveys were required. Precautionary methods were set out to mitigate potential impacts of any future habitat manipulation work. It was recommended that bird and bat boxes are installed to compensate for the loss of suitable habitat. Off-site habitat enhancement was also recommended to support reptiles and great crested newts following the grassland habitat clearance, as well as the removal of invasive/non-native ornamental plants in favour of native species. A Precautionary Method Statement for Great Crested Newts was completed by The Ecology Co-op in November 2025.
Mitigation measures	Section 3 of this report details mitigation measures, including measures for: • Bats – any external artificial lighting on site should be in line with recommendations from the Bat Conservation Trust's guidance regarding an ecologically sensitive lighting scheme (see Appendix 2); • Breeding birds – works to or near existing vegetation (hedgerows, scrub and trees) is to be undertaken outside of the breeding bird season or features checked prior to works by a suitably qualified ecologist; • Great crested newts – the measures set out in the Precautionary Method Statement for Great Crested Newts by The Ecology Co-op are to be followed.
Biodiversity Enhancements	Section 4 sets out the proposed habitat enhancement measures for the site, including: • Enhancement of the existing hedgerow along the western and northern boundary; • New tree planting along the eastern boundary of both plots; • Enhancements for bats – a minimum of four bat boxes within existing mature trees; • Enhancements for breeding birds – a minimum of four bird boxes in the mature trees along the western hedgerow; and • Enhancements for amphibians – a requirement for offsite provision of habitat enhancement and hibernacula (details are contained within the precautionary Method Statement (PMS) for Great Crested Newts).
Post-construction management	Post-construction management for the retained ecological features and proposed biodiversity enhancement features is detailed in full in section 5 and a work schedule is provided in section 7. Roles and responsibilities are outlined in section 6.
Toolbox talk	Site staff must be briefed, prior to the commencement of construction, on the ecological issues related to the project and the importance of contacting an ecologist in the event



	that any wildlife is identified within the construction zone.
--	---



CONTENTS PAGE

1 INTRODUCTION	1
1.1 Purpose of the Report	1
1.2 Background	1
1.3 Summary of Previous Survey Work	3
2 LEGAL PROTECTION	3
2.1 Management Plan Strategic Vision	3
3 MITIGATION MEASURES	4
3.1 Bats	4
3.2 Breeding Birds.....	5
3.3 Great Crested Newts.....	5
4 BIODIVERSITY ENHANCEMENT MEASURES	6
4.1 Hedgerow Enhancements	6
4.2 Tree Planting	6
4.3 Enhancements for Bats	7
4.4 Enhancements for Nesting Birds.....	8
4.5 Enhancements for Amphibians	9
5 POST-CONSTRUCTION MANAGEMENT PLAN	9
5.1 Enhanced Hedgerows	9
5.2 Tree Planting	9
5.3 Other	10
6 WORK SCHEDULE.....	7
7 ROLES AND RESPONSIBILITIES	1
7.1 Ecological Clerk of Works (ECoW).....	1
7.2 Client/Principal Designer	1
7.3 Principal Contractor/Site Manager/Site Owner.....	1
7.4 Communication	1
APPENDIX 1 – Wildlife Legislation and National Planning Policy	2
APPENDIX 2 – Reducing Impacts of Artificial Light	7



1 INTRODUCTION

1.1 Purpose of the Report

The Ecology Co-operation was commissioned by Manorwood to produce a Biodiversity Enhancement Strategy (BES) associated with two mobile homes and two stables at Greenacres Farm, West Chiltington Lane, Billingshurst, West Sussex.

This document outlines site-wide mitigation for habitats and protected species as well as targeted enhancement measures. It also includes the management objectives, responsibilities and maintenance schedules including remedial responsibilities, should they be necessary. It will be submitted to Horsham District Council with regards to condition no. 72 of the approved planning appeal number: APP/Z3825/C/25/3375764, with the following wording:

'A condition requiring the submission and subsequent implementation of a Biodiversity Enhancement Strategy for Protected and Priority species is necessary as an attempt to reverse the harm already done to the ecological and biodiversity value of the site. Similarly, a condition requiring that no external lighting or floodlighting is installed without prior permission from the local planning authority is necessary in order that protected species (bats) are not prevented from foraging over/and or commuting across the appeal site.'

Implementation of the prescribed mitigation and enhancement measures will be overseen by a suitable ecological consultancy, and the works contractor/site owner will be given contact details for an ecologist so that any issues can be resolved promptly.

1.2 Background

The site is located at Greenacres Farm, West Chiltington Lane, Billingshurst, RH14 9DR. The central grid reference for the site is TQ 11495 26575. The location of the site is shown in Figure 1.

The site comprises two residential traveller plots with associated vehicular parking, hard standing, gated access points, gardens and horse paddocks; the work has already been completed for their installation. Permission has been granted at appeal that the plots can remain provided the conditions set within the planning appeal are implemented.

Prior to the completed works, the site comprised of the southern half of a modified grassland patch with stretches of hedgerow and bramble *Rubus fruticosus* agg. scrub. It is bordered on the western boundary by West Chiltington Lane, with a separate residential traveller plot of 11 pitches immediately east. The rural setting in which the site is located is dominated by open farmland separated by areas of hedgerow and some areas of ancient deciduous woodland.

The proposed development enhancements comprise alterations to the hard and soft landscaping works including measures to enhance biodiversity on the site, and these are shown in Figures 2 and 3.



Figure 1. Aerial image showing the location of Greenacres Farm (Images produced courtesy of Magic maps (<http://www.magic.gov.uk/>, contains public sector information licensed under the Open Government Licence v3.0).

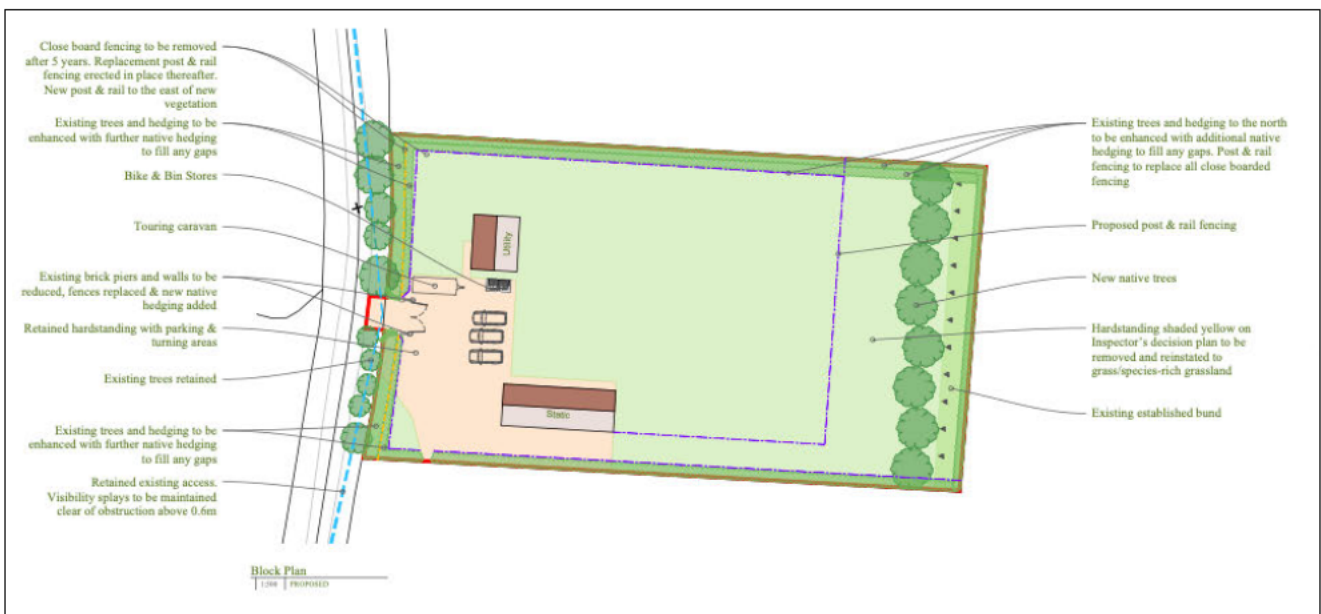


Figure 2. Final plan for the proposal depicting the northern plot. Provided by the client Manorwood, dated 18.06.2026, extract from drawing number: 2511GR_000.



Figure 3. Final plan for the proposal depicting the southern plot. Provided by the client Manorwood, dated 18.06.2026, extract from drawing number: 2511GR_000.

1.3 Summary of Previous Survey Work

A Preliminary Ecological Appraisal (PEA) with UKHab¹ completed by The Ecology Co-op in November 2025 identified the potential for roosting bats, nesting birds, reptiles and great crested newts *Triturus cristatus* to be present on the site. No Phase 2 surveys were required.

A Precautionary Method Statement (PMS) for Great Crested Newts² was completed by The Ecology Co-op in November 2025 identifying working methods onsite should further habitat manipulation be required.

2 LEGAL PROTECTION

Legal protection applying to relevant bird, mammal and herpetofauna species is detailed in Appendix 1 of this report. This includes both national and European legislation that protects [REDACTED] bats, dormice *Muscardinus avellanarius*, reptiles, and breeding birds.

2.1 Management Plan Strategic Vision

The aims and objectives for the landscape and biodiversity elements of this development project are as follows:

- retain and protect valuable existing 'green assets', including hedgerows, tree lines, ruderal habitat, and bunds;
- creation of new green assets including native trees and infill hedgerow planting;
- minimise impacts and ensure compliance with legislation on key species: bats (commuting and foraging),

¹ The Ecology Co-op (2025). Preliminary Ecological Appraisal UKHab survey. – Greenacres Farm

² The Ecology Co-op (2025). Precautionary Method Statement; Great Crested Newts. – Greenacres Farm



- breeding birds, great crested newts, and reptiles;
- provide targeted and appropriate habitat enhancement features for bats, birds, reptiles and amphibians.

3 MITIGATION MEASURES

Construction works have already been completed on site, but the following measures provide mitigation, guidance and compensation for the loss of habitat as a result of the works.

3.1 Bats

Bright external lighting can have a detrimental impact upon foraging and commuting bat flight paths, but more importantly can also cause bats to remain in their roosts for longer. Guidelines issued by the Bat Conservation Trust must be considered while designing any external lighting scheme see Appendix 2. This includes the following measures:

- no 'upward pointing' or bare bulb lights will be installed anywhere on the development. The lighting scheme will be designed to minimise light spill onto any established or created semi-natural habitats including mature trees and hedgerows;
- lighting on pedestrian routes will be kept to a minimum required to maintain safety and security. Where possible, reflective white line-painting will be used as an alternative to lights, and where lighting cannot be avoided, these should be mounted on 1m high pillars and directed down towards the path to minimise light spill;
- 'dark corridors' to be maintained on site where no external lighting is permitted (see Figure 4), and
- the frequency spectrum of light sources selected should have reduced attraction to insects.



Figure 4. Aerial image showing the location of Greenacres Farm with dark corridors illustrated in blue shading. (Images produced courtesy of Magic maps (<http://www.magic.gov.uk/>), contains public sector information licensed under the Open Government Licence v3.0)

3.2 Breeding Birds

The existing scrub, trees and hedgerows on the site may support breeding birds and precautionary measures will be necessary to prevent a breach of the Wildlife and Countryside Act 1981 (as amended) for any future management of these habitats. As such, future pruning or any removal of vegetation must be completed outside of the breeding bird season (avoiding 1st March to 31st August), unless features are first searched by a suitably qualified ecologist and no active nests are found. If a nest is found, a minimum buffer of 5m must be maintained around the nest until all of the young have fledged safely.

3.3 Great Crested Newts

If vegetation clearance is required to facilitate future on-site works, the methodology contained within the Precautionary Method Statement (PMS) for Great Crested Newts is to be followed. All works are to be undertaken under the supervision of a suitably qualified ecologist.



4 BIODIVERSITY ENHANCEMENT MEASURES

4.1 Hedgerow Enhancements

Existing hedgerows

The existing hedgerows on the western, northern and southern boundary of the northern plot and on the western and northern boundary of the southern plot are to be enhanced with native tree species planted in any hedgerow gaps. Species for infilling are to be chosen from the list in Table 1 below; 70% of the planting will consist of hawthorn *Crataegus monogyna* and blackthorn *Prunus spinosa*, with the remainder are to be chosen from a selection of native tree species. For a hedgerow to be considered species-rich it requires a minimum of five species.

Table 1. Native tree species for hedgerow infills.

Common Name	Scientific Name
70%	
Hawthorn	<i>Crataegus monogyna</i>
Blackthorn	<i>Prunus spinosa</i>
30%	
Hazel	<i>Corylus avellana</i>
Holly	<i>Ilex aquifolium</i>
Dog rose	<i>Rosa canina</i>
Field maple	<i>Acer campestre</i>
Dogwood	<i>Cornus sanguinea</i>
Spindle	<i>Euonymus europaeus</i>
Wild privet	<i>Ligustrum vulgare</i>
Common beech	<i>Fagus sylvatica</i>
Common hornbeam	<i>Carpinus betulus</i>
Guelder rose	<i>Viburnum opulus</i>

The specification for the planting is shown on drawing number 2511GR_000 Block Plan Northern plot and 2511GR_000 Block Plan Southern plot, dated June 2026 which details hedging to be planted in existing hedgerow gaps to create a continuous hedgerow. Trees are to be planted in the autumn and winter months and protected from grazing through the use of equine fencing with a buffer zone of a minimum of 1 metre.

Newly planted trees require watering when planted and regularly in the first weeks after, with the ground thoroughly wetted to ensure the water reaches the roots. New trees will be watered appropriately (the Arboricultural Association recommended 50 litres/week) in the summer months for their first three years.

4.2 Tree Planting

There are lines of existing trees on the site located on the western and northern site boundary of the plots which are to be retained.

New tree planting along the eastern edge of the plots will provide a line of trees creating a sheltered grassland area in the centre of the plots. These trees will provide increased canopy cover for wildlife and a commuting corridor for bats and birds. The new trees will provide continuity of habitat to connect the surrounding landscape. The native tree species are to be chosen from Table 2 below.

**Table 2.** Native tree species suitable for planting at the site.

Common name	Scientific Name
Field maple	<i>Acer campestre</i>
English oak	<i>Quercus robur</i>
Silver birch	<i>Betula pendula</i>
Hornbeam	<i>Carpinus betulus</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>

The specification for the tree planting is shown on drawing number 2511GR_000 Block Plan Northern plot and 2511GR_000 Block Plan Southern plot, dated June 2026 and the specification contained in these drawings are to be followed.

These trees will preferably be sourced from local nurseries. It is best to plant bare root stock while the trees are dormant between November and March in the absence of heavy frost. Trees will be protected by a staked mesh guard with an area of bark and/or wood chip mulch present at least 1.2m around the tree trunks. Newly planted trees require watering when planted and regularly in the first weeks after with the ground thoroughly wetted to ensure the water reaches the roots. New trees will be watered appropriately (the Arboricultural Association recommended 50 litres/week) in the summer months for their first three years.

4.3 Enhancements for Bats

To compensate for the potential loss of roosting opportunities for bats due to the past works, it is recommended that a minimum of four bat boxes are installed on mature trees within the hedgerow to the west of the site. Examples of suitable bat boxes are shown in Figure 5.

Bat boxes in trees are to be positioned at least 3m from the ground and in a sheltered position out of direct sunlight with a clear flight path between the box entrance and the wider landscape. Trees are to be selected that have sufficient height and that do not contain existing bat roosts. All trees are to be checked by a suitably qualified ecologist prior to bat box installation.



Figure 5. Left to right, the 2F, 2FN and the 1FS bat boxes produced by Schwegler. These and other brands are available at many online wildlife stores. These are constructed of 'woodcrete' (a mixture of cement and woodchip) and are designed to be durable and replicate the stable thermal properties of trees and buildings. They may be attached to trees or buildings.

4.4 Enhancements for Nesting Birds

To compensate for the loss of nesting opportunities on site, it is recommended that a minimum of four bird nest boxes are affixed to mature trees in the hedgerow along the western boundary. Examples of bird nest boxes are shown in Figure 6. Boxes on trees are to be positioned at least 3m from the ground on suitable mature trees protected from direct southern sun exposure. Trees are to be checked for existing bird nesting and bat roosting features prior to installation by a suitably qualified ecologist.



Figure 6. Left to right; Vivara Pro Seville 28mm WoodStone Nest Box, Starling Nest Box, and 1ZA Schwegler Wren Roundhouses Box.

4.5 Enhancements for Amphibians

Provision for offsite enhancement for great crested newts is contained within the PMS for Great Crested Newts including seeding with a tussocky wildflower mixture and hibernaculum. All works to be undertaken under the supervision of a suitably qualified ecologist.

5 POST-CONSTRUCTION MANAGEMENT PLAN

5.1 Enhanced Hedgerows

Hedgerows should annually be checked for signs of disease and more frequently while new ones are establishing. If disease is identified advice should be sought from an arboriculturist regarding the appropriate method of treatment. Tree guards, to protect the new saplings from rabbits and deer, to be inspected yearly for the first five years and then removed if planting is well established.

Trees and shrubs should be allowed to grow unhindered where possible. However, it may be necessary to trim back trees and shrubs in some circumstances, such as where there is a risk to health and safety, or for maintenance of the ecological feature. Cutting of shrubs and trees must only be timed outside the bird nesting season (avoiding 1st March to 31st August). Where possible they shouldn't be cut until February, so that valuable winter food associated with fruiting shrubs/trees is retained for over-wintering birds.

5.2 Tree Planting

Tree guards, to protect the new saplings from accidental damage, rabbits and deer, to be inspected twice annually to remove weeds and any soil build up inside the tubes for first three years and then remove when planting well established. Tree stakes and ties will be checked annually and after strong winds.

Checks for signs of disease will be undertaken. If disease is identified advice should be sought from an arboriculturist regarding the appropriate method of treatment. Replacement planting will be required where trees



fail to establish.

Cutting of existing trees as required must only be timed outside the bird nesting season (avoiding 1st March to 31st August). Where possible shrubs shouldn't be cut until February, so that valuable winter food associated with fruiting shrubs/trees is retained for over-wintering birds.

5.3 Other

The bat roosting features will be largely maintenance-free, apart from an annual check that they remain in position. Any damaged boxes are to be replaced like for like. However, an important component to these habitat features will be managing the expectations of residents and other users of the site, including dealing with any questions or unauthorised interference. It is recommended that occupiers of the site are made aware of the legal protection afforded to bats and birds, and their obligations as owners. It is illegal to clean, move or interfere with a bat roost (including boxes) and any checks will have to be undertaken by a suitably qualified ecologist.

Bird nesting boxes should be emptied of nesting material in winter to prevent the build-up of parasites.

Reptile and amphibian refugia/hibernacula are to be checked periodically for decay, and any hibernacula that are degrading significantly should be replaced.



6 WORK SCHEDULE

Table 3 below provides the timetable to aid correct timing of the annual 'green asset' management at the site.

Table 3. Annual work schedule for the management period.

Action for green assets	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Check trees for signs of any disease							X	X	X			
Cutting of hedgerows and trees		X										
Keeping tree saplings well-watered	X	X	X	X	X	X	X	X	X	X	X	X
Inspection of tree guards and fences	X	X	X	X	X	X	X	X	X	X	X	X
Replacement planting of failed trees or shrubs	X	X	X								X	X
Inspection of bat and bird boxes									X	X	X	
Clearance of old bird nests from bird boxes									X			



7 ROLES AND RESPONSIBILITIES

7.1 Ecological Clerk of Works (ECoW)

The ecological clerk of works (ECoW) or suitably qualified ecologist is responsible for pre-commencement attendance at any site vegetation clearance or construction near hedgerows checking for presence of breeding birds and great crested newts. They will provide technical advice in response to ecological matters arising on site. They will also issue a letter with findings following attendance on site and advise of any additional actions to be undertaken.

7.2 Client/Principal Designer

The client is responsible for ensuring that ecological requirements are integrated into the landscaping. The client is also responsible for procuring competent ecological advice, and for monitoring compliance with the Biodiversity Enhancement Strategy and Precautionary Method Statement for Great Crested Newts conditions.

7.3 Principal Contractor/Site Manager/Site Owner

The principal contractor and site manager/owner are responsible for the onsite implementation of the Biodiversity Enhancement Strategy and any associated method statement and licensing conditions. They will ensure that all onsite employees and subcontractors receive a toolbox talk on ecological requirements. They will halt works where ecological risks arise and gain advice and guidance from the ECoW. Also responsible for maintaining records of ecological incidents, actions and communications and advising the client of any further action in conjunction with the ECoW.

7.4 Communication

All ecological incidents arising on site are to be reported to the principal contractor/site manager in the first instance. The principal contractor /site manager is to consult with the ECoW or suitably qualified ecologist and implement their advice. If significant ecology issues and any reportable incidents occur these are to be reported by the ECoW to the client, then where necessary the Local Planning Authority and/or Natural England.



APPENDIX 1 – Wildlife Legislation and National Planning Policy

Introduction

The following text is intended for general guidance only and does not constitute comprehensive professional legal advice. It provides a summary of the current legal protection afforded to wildlife in general and certain species. It includes current national planning policy relevant to nature conservation.

The ‘Birds Directive’, ‘Habitats Directive’ and ‘Natura 2000 Sites’

The Council Directive 79/409/EEC on the Conservation of Wild Birds (“the Birds Directive”) sets a framework for the protection of wild birds. Under the Directive, several provisions are made including the designation and protection of ‘Special Protection Areas’ (SPAs) – areas which support important bird populations, and the legal protection of rare or vulnerable species.

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the “Habitats Directive”) directs member states of the EU to take measures to maintain the favourable conservation status of important habitats and species. This requires the designation of a series of sites which contain important populations of species listed on Annex II of the Directive (for example Bechstein’s bat *Myotis bechsteinii*, Barbastelle bat *Barbastella barbastellus* and white-clawed crayfish *Austropotamobius pallipes*. Together with ‘Special Areas of Conservation’ (SACs), SPAs form a network across Europe of protected areas known as the ‘Natura 2000 sites’.

Annex IV lists species in need of more strict protection, these are known as “European Protected Species (EPS)”. All bat species, common dormice *Muscardinus avellana*, otter *Lutra lutra* and great crested newts *Triturus cristatus* are examples of EPS that are regularly encountered during development projects.

The ‘Habitats Regulations’

The Conservation of Habitats and Species Regulations 2017, as amended (the “Habitats Regulations”) is the principle means of transposing the Habitats Directive and the Birds Directive, and updates the Conservation (Natural Habitats, &c.) Regulations 1994 (“the 1994 regulations”) in England and Wales.

‘Natura 2000’ sites, now known as National Site Network sites under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, receive the highest level of protection under the Regulations which requires that any activity within the zone of influence of these sites would be subject to a Habitats Regulations Assessment (HRA) by the competent authority (e.g. planning authority), leading to an Appropriate Assessment (AA) in cases where ‘likely significant effects’ to the conservation objectives are identified.

For European Protected Species, Regulation 41 makes it a criminal offence to:

- deliberately capture, injure or kill any such animal;
- deliberately disturb wild animals of such species;
- deliberately take or destroy their eggs (where relevant);
- damage or destroy a *breeding or resting place* of such an animal;
- possess, control, sell or exchange any live or dead animal or plant, of such species;
- deliberately pick, collect, cut, uproot or destroy a wild plant of such species.

The Habitats Directive and Habitats Regulations provide for the derogation from these prohibitions for specific



reasons provided certain conditions are met. An EPS licensing regime allows operations that would otherwise be unlawful acts to be carried out lawfully. Natural England is the licensing Authority and, in order to grant a license, ensures that three statutory conditions (sometimes referred to as the 'three derogation tests') are met:

- a licence can be granted for the purposes of “preserving public health or safety or for other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment” (Regulation 53 (2) (e);
- a licence can be granted if “there are no satisfactory alternatives” to the proposed action;
- a licence shall not be granted unless 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.

Wildlife and Countryside Act (1981) as amended

This remains one of the most important pieces of wildlife legislation in the UK. There are various schedules to the Act protecting birds (Schedule 1), other animals including insects (Schedule 5), plants (Schedule 8), and control of invasive non-native species (Schedule 9).

Under the Wildlife and Countryside Act (WCA) 1981, all wild birds (with the exception of those listed on Schedule 2), their eggs and nests are protected by law and it is an offence to:

- take, damage or destroy the nest of any wild bird while it is in use or being built
- take or destroy the egg of any wild bird
- disturb any bird listed on Schedule 1, while it is nest building, or at a nest with eggs or young, or disturb the dependant young of any such bird.

Schedule 5 lists all non-avian animals receiving protection to a varied degree. At its strongest, the Act makes it an offence to intentionally kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturb animals while occupying such places. Examples of species with *full protection* include all EPS, common reptile species, water vole *Arvicola amphibius*, white-clawed crayfish *Austropotamobius pallipes* and Roman snail *Helix pomatia*. Other species are protected from sale, barter or exchange only, such as white letter hairstreak *Satyrrium w-album*.

The Act makes it an offence to intentionally pick, uproot or destroy any plant or seed, and sell or possess any plant listed on Schedule 8. It is also an offence to intentionally uproot any wild plant not listed on Schedule 8 unless authorised [by the land owner]. Species on Schedules 5 and 8 are reviewed every 5 years when species can be added or removed.

Measures for the prevention of spreading non-native species which may be detrimental to native wildlife is included in the Act, which prohibits the release of animals or planting of plants into the wild of species listed on Schedule 9 (for example Japanese knotweed *Fallopia japonica*, Himalayan balsam *Impatiens glandifera*, New Zealand Pygmyweed *Crassula helmsii*).

The Wildlife and Countryside Act 1981 (as amended) also prohibits certain inhumane methods of traps and devices for the capture or killing of wild animals and certain additional methods such as fixed trap, poisoning with gas or smoke, or spot-lighting with vehicles for killing species listed on Schedule 6 of the Act (this includes all bat species, [REDACTED] otter, polecat, dormice, hedgehog and red squirrel).

Natural Environment and Rural Communities (NERC) Act (2006)

The NERC Act (2006) created the statutory nature conservation body Natural England, and places a statutory duty on all public bodies, including planning authorities, under Section 40, to take, or promote the taking by others, steps to further the conservation of *habitats and species of principal importance for the conservation of biodiversity*



in England (commonly referred to as the ‘Biodiversity Duty’). This duty extends to all public bodies the biodiversity duty of Section 74 of the Countryside and Rights of Way (CROW) Act 2000, which placed a duty only on Government and Ministers. Section 41 of the NERC Act lists the habitats and species of principle importance. This includes a wide range of species from mosses, vascular plants, invertebrates through to mammals and birds. It originates from the priority species listed under the UK Biodiversity Action Plan (UK BAP) with some omissions and additions.

Environment Act (2021)

The Environment Act sets a target of halting the decline in species through the inclusion of a legally binding 2030 species abundance target. Aiming to restore natural habitats and enhance biodiversity, the Act requires new developments to improve or create habitats for nature (through mechanisms such as mandatory Biodiversity Net Gain), and tackle deforestation. Going forwards, UK businesses will need to look closely at their supply chains as amongst other measures they will be prohibited from using commodities associated with wide-scale deforestation. Woodland protection measures are also strengthened through the Act.

The Act enables the reform of the Habitats Regulations and further improves protection for nature through the establishment of Local Nature Recovery Strategies that support national Nature Recovery Networks. In addition, the Act provides for the production of Protected Site Strategies and Species Conservation Strategies, aimed at supporting the design and delivery of strategic approaches to deliver better outcomes for nature.

[REDACTED]

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

[REDACTED]

National Planning Policy Framework

The National Planning Policy Framework (NPPF 2024)³ sets out the Government’s view on how planners should balance nature conservation with development and helps ensure that Government meets its biodiversity commitments with regard to the operation of the planning system.

Paragraph 192b, states that council plans should “*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.*”

³ HM Government (2024). National Planning Policy Framework. Department for Communities and Local Government. Available online at: https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF_December_2024.pdf



The Office of the Deputy Prime Minister (ODPM) Circular 06/2005, 2005)⁴. In accordance with the NPPF, it is important that developments should contribute to and enhance the natural and local environment by:

- minimising impacts on existing biodiversity and habitats;
- providing net gains in biodiversity and habitats, wherever possible;
- establishing coherent ecological networks that are more resilient to current and future pressures.

UK Post-2010 Biodiversity Framework

The UK Biodiversity Action Plan (UK BAP), first published in 1994, was the UK's response to the commitments of the Rio Convention on Biological Diversity (1992) until 2010, when the UK BAP was replaced by the UK Post-2010 Biodiversity Framework. This framework covers the period 2011 to 2020 and forms the UK government's response to the new strategic plan of the United Nations Convention on Biodiversity (CBD) published in 2010. This promotes a focus on individual countries delivering target for protection for biodiversity through their own strategies.

The most recent biodiversity strategy for England, 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services' was published by Defra (2011), and a progress update was provided in July 2013 (Defra 2013).

'Biodiversity 2020' builds on the Natural Environment White Paper for England – 'The Natural Choice', published on 7 June 2011, and sets out the strategic direction for biodiversity policy for the next decade.

Biodiversity 2020 deliberately avoids setting specific targets and actions for local areas and species because the Government believes that local people and organisations are best placed to decide how to implement the strategy in the most appropriate way for their local area or situation.

Birds of Conservation Concern (BoCC)

In 1996, the UK's leading non-governmental bird conservation organisations listed the conservation status of all bird species in the UK against a series of criteria relating to their population size, trends and relative importance to global conservation. The lists, known as the 'Red', 'Amber' and 'Green' lists (in order of decreasing concern) are used to inform key conservation policy and decisions. The lists are reviewed every five years and are a useful reference for determining the current importance of a particular site for birds. The most recent review was undertaken in 2021 (Stanbury et al, 2021), which provides an up to date assessment of the conservation status of birds in the UK.

References

Circular 06/2005 (2005). Government Circular: Biodiversity and geological conservation – statutory obligations and their impact within the planning system. Office of the Deputy Prime Minister, London. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf

Council Directive 79/409/EEC on the Conservation of Wild Birds ("the Birds Directive"). Available at: <http://jncc.defra.gov.uk/page-1373>

⁴ HM Government (2005) ODPM Circular 06/05 Government Circular: *Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf.



Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the “Habitats Directive”). Available at: <http://jncc.defra.gov.uk/page-1374>

The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations”). Available at: <http://jncc.defra.gov.uk/page-1379>

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Available at: <https://www.legislation.gov.uk/ukdsi/2019/9780111176573>

Countryside and Rights of Way (CROW) Act (2000). HMSO London. Available at: <http://www.legislation.gov.uk/ukpga/2000/37/contents>

Defra (2011) Biodiversity 2020: A strategy for England’s wildlife and ecosystem services. Available at: www.gov.uk/government/publications/biodiversity-2020-a-strategy-for-england-s-wildlife-and-ecosystem-services.

Defra (2013) Progress Update. Available at: www.gov.uk/government/publications/biodiversity-2020-simple-guide-and-progress-update-july-2013.

Stanbury, A., Eaton, M., Aebischer, N., Balmer, N., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. (2021). Birds of Conservation Concern 5: the status of bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man. *British Birds* 114, pp 723-747.

Natural Environment and Rural Communities (NERC) Act (2006). HMSO London. Available at: http://www.legislation.gov.uk/ukpga/2006/16/pdfs/ukpga_20060016_en.pdf

National Planning Policy Framework (NPPF) (2024) Ministry of Housing Communities & Local Government. Available at:

https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF_December_2024.pdf

Wildlife and Countryside Act (WCA) (1981). HMSO London. Available at: <http://www.legislation.gov.uk/ukpga/1981/69/contents>



APPENDIX 2 – Reducing Impacts of Artificial Light

Bright external lighting can have a detrimental impact upon foraging and commuting bat flight paths, but more importantly can also cause bats to remain in their roosts for longer. Artificial lighting can also cause significant impacts to other nocturnal species, most notably moths and other nocturnal insects. It can also result in disruption of the circadian rhythms of birds, reducing their fitness.

Guidelines issued by the Bat Conservation Trust⁵ should be referred to when designing the lighting scheme. Note that lighting designs in very sensitive areas should be created with consultation from an ecologist and using up-to-date bat activity data where possible. The guidance contains techniques that can be used on all sites, whether a small domestic project or larger mixed-use, commercial or infrastructure development. This includes the following measures:

Avoid lighting key habitats and features altogether

There is no legal duty requiring any place to be lit. British Standards and other policy documents allow for deviation from their own guidance where there are significant ecological/environmental reasons for doing so. It is acknowledged that in certain situations lighting is critical in maintaining safety, such as some industrial sites with 24-hour operation; however, in the public realm, while lighting can increase the perception of safety and security, measurable benefits can be subjective. Consequently, lighting design should be flexible and be able to fully consider the presence of protected species.

Apply mitigation methods to reduce lighting to agreed limits in other sensitive locations – lighting design considerations

Where bat habitats and features are considered to be of lower importance or sensitivity to illumination, the need to provide lighting may outweigh the needs of bats. Consequently, a balance between a reduced lighting level appropriate to the ecological importance of each feature and species, and the lighting objectives for that area will need to be achieved. The following are techniques which have been successfully used on projects and are often used in combination for best results:

- dark buffers, illuminance limits and zonation;
- sensitive site configuration, whereby the location, orientation and height of newly built structures and hard standing can have a considerable impact on light spill;
- consideration of the design of the light and fittings, whereby the spread of light is minimised ensuring that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Consideration should be given to the height of lighting columns. It should be noted that a lower mounting height is not always better. A lower mounting height can create more light-spill or require more columns. Column height should be carefully considered to balance task and mitigation measures. Consider no lighting solutions where possible such as white lining, good signage, and LED cat's eyes. For example, light only high-risk stretches of roads, such as crossings and junctions, allowing headlights to provide any necessary illumination at other times;
- screening, whereby light spill can be successfully screened through soft landscaping and the installation of walls, fences and bunding;
- glazing treatments, whereby glazing should be restricted or redesigned wherever the ecologist and lighting professional determine there is a likely significant effect upon key bat habitat and features;

⁵ Bat Conservation Trust and Institute for Lighting Professionals (2023) Guidance note 8. Bats and Artificial Lighting. <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>



- creation of alternative valuable bat habitat on site, whereby additional or alternative bat flightpaths, commuting habitat or foraging habitat could result in appropriate compensation for any such habitat being lost to the development;
- dimming and part-night lighting. Depending on the pattern of bat activity across the key features identified on site it may be appropriate for an element of on-site lighting to be controlled either diurnally, seasonally or according to human activity. A control management system can be used to dim (typically to 25% or less) or turn off groups of lights when not in use.

Demonstrate compliance with illuminance limits and buffers

- *Design and pre-planning phase*; it may be necessary to demonstrate that the proposed lighting will comply with any agreed light-limitation or screening measures set as a result of your ecologist's recommendations and evaluation. This is especially likely to be requested if planning permission is required.
- *Baseline and post-completion light monitoring surveys*; baseline, pre-development lighting surveys may be useful where existing on or off-site lighting is suspected to be acting on key habitats and features and so may prevent the agreed or modelled illuminance limits being achieved.
- *Post-construction/operational phase compliance-checking*; as a condition of planning, post-completion lighting surveys by a suitably qualified person should be undertaken and a report produced for the local planning authority to confirm compliance. Any form of non-compliance must be clearly reported, and remedial measures outlined. Ongoing monitoring may be necessary, especially for systems with automated lighting/dimming or physical screening solutions.

Lighting Fixture Specifications

The Bat Conservation Trust recommends the following specifications for lighting on developments to prevent disturbance:

- Lighting spectra: peak wavelength >550nm
- Colour temperature: <2700K (warm)
- Reduction in light intensity
- Minimal UV emitted
- Upward light ratio of 0% and good optical control

Further reading:

Buglife (2011) A review of the impact of artificial light on invertebrates.

Royal Commission on Environmental Pollution (2009) Artificial light in the environment. HMSO, London. Available at: <https://www.gov.uk/government/publications/artificial-light-in-the-environment>

Rich, C., Longcore, T., Eds. (2005) Ecological Consequences of Artificial Night Lighting. Island Press. ISBN 9781559631297.

CPRE (2014) Shedding Light: A survey of local authority approaches to lighting in England. Available at: <http://www.cpre.org.uk/resources/countryside/dark-skies/item/3608-shedding-light>

Planning Practice Guidance guidance (2014) When is light pollution relevant to planning? Available at: <https://www.gov.uk/guidance/light-pollution>



Institution of Lighting Professionals (2021) Guidance Notes for the Reduction of Obtrusive Light GN01:2011.
Available at: <https://www.theilp.org.uk/resources/free-resources/>

Voigt, C.C., Azam, C., Dekker, J., Ferguson, J., Fritze, M., Gazaryan, S., Hölker, F., Jones, G., Leader, N., Lewanzik, D. and Limpens, H., 2018. *Guidelines for consideration of bats in lighting projects*. Unep/Eurobats.
Available at:
https://cdn.bats.org.uk/uploads/pdf/Resources/EUROBATSGuidelines8_lightpollution.pdf?v=1542109376