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Landscape and Ecological Management Plan

Site Name

Harts Farm Way, Havant

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Client

EL Asset Co.2 Ltd

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About the Author

This report has been prepared by Jenna Fairchild, an Assistant Ecologist at The Ecology Co-op, with one year of experience working in consultancy and three years' experience working with bats. She holds an MSc in Ecology, during which her thesis research focussed on bat behaviour and habitat use.

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.



Report Summary

Purpose	The Ecology Co-operation was commissioned by EL Asset Co.2 Ltd to provide a Landscape and Ecological Management Plan (LEMP) with regards to a proposed development at Harts Farm Way, Havant. 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 Havant Borough Council in order to discharge condition 6 of the approved planning application, APP/24/00237.
Context	An Ecological Assessment of the site was undertaken in May 2024 by The Ecology Co-op.
Pre-construction measures	Section 3 of this report outlines pre-construction mitigation measures for badgers and hedgehog.
Construction and operational phase measures	Section 4 of this report details mitigation measures during construction and the operational phase of the development, including an ecologically sensitive lighting scheme (see Appendix 2), and precautionary measures for: • dust deposition and pollution; • noise and vibration; • hydrology; • bats; • breeding birds; • dormice; • reptiles; and • hedgehogs.
Biodiversity Enhancements	Section 5 sets out the proposed habitat enhancement measures for the site, including: • wildflower meadow creation; • hedgerow creation; • hibernaculum creation; and • bee bank creation.
Post-construction management	Post construction management for the proposed biodiversity enhancement features is detailed in full in section 6 and a work schedule is provided in section 7 outlining management responsibilities and remedial actions should they be necessary.
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.



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1 INTRODUCTION

1.1 Purpose of the Report

The Ecology Co-operation was commissioned by EL Asset Co.2 Ltd to produce a Landscape and Ecological Management Plan (LEMP) for the proposed construction of a gas fuelled capacity mechanism embedded generation plant at Harts Farm Way, Havant. 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 Havant Borough Council with regards to condition 6 of the approved planning application APP/24/00237.

The full condition wording is as follows:

“Prior to the commencement of development activities, a Landscape & Ecological Management Plan shall be submitted to an approved in writing by the Local Planning Authority. The Plan shall be in accordance with the ecological avoidance, mitigation, enhancement, and management measures as detailed in the Ecological Assessment (The Ecology Co-op, May 2024) unless otherwise agreed in writing by the Local Planning Authority. It shall include, but not necessarily be restricted to: full details of all ecological avoidance and mitigation measures, to include timings, methods and responsibilities; full details of all ecological compensation and enhancement measures, including location, area, composition, establishment and ongoing management, monitoring and responsibilities.”

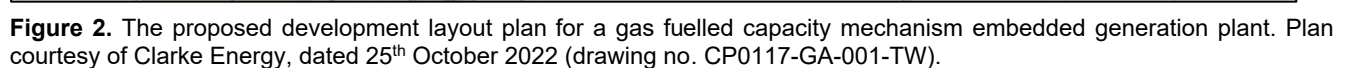
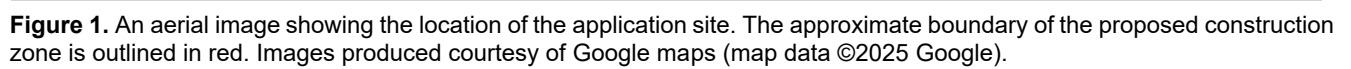
The prescribed mitigation measures described within this document will be issued to relevant works contractors to ensure that they are carried out in full. Implementation of this will be overseen by a suitable ecological consultancy, and the works contractor will be given contact details for an ecologist so that any issues can be resolved promptly.

1.2 Background

The site is located on the southern outskirts of Havant, Hampshire PO9 1JN. The central grid reference for the site is SU 70610 05829. The location of the site is shown in Figure 1.

The site comprises a disused parcel of brownfield land within an industrial estate. The site is dominated by hard standing which has not been maintained recently, leading to ruderal plants beginning to establish and areas of fallen deadwood and leaf litter forming. Mosses are abundant between cracks in the hard standing. Patches of buddleia *Buddleia* sp. and bramble *Rubus fruticosus* agg. scrub are present, particularly along the site boundaries and close to the existing entrance.

The proposed development comprises the installation of five 4.5MW gas fuelled capacity mechanism embedded generators. The proposed plans for the site are indicated in Figure 2 below.





1.3 Summary of Previous Survey Work

An Ecological Assessment¹, completed by The Ecology Co-op in May 2024, identified the potential for foraging and commuting bats, nesting birds, hazel dormice *Muscardinus avellanarius*, common reptiles, amphibians, and hedgehogs *Erinaceus europaeus* to be present on the site. Samples were also taken from Ditch 1 and Pond 1 for eDNA analysis to test for the presence of great crested newts *Triturus cristatus*, which were negative. The Ecological Assessment identified that an open mosaic habitat is beginning to establish on site; however, having only recently formed within the past four to five years, the botanical and habitat diversity of the site is not sufficient to yet reach the criteria for priority habitat under Section 41 of the NERC Act 2007 and therefore there will be no loss of priority habitat.

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 badgers, bats, dormice, 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:

- creation of new green assets including scrub and wildflower areas;
- minimise impacts and ensure compliance with legislation on key species: badgers, bats (commuting and foraging), breeding birds, hazel dormice, reptiles, and hedgehogs;
- provide targeted and appropriate habitat enhancement features for insects, bats, birds, reptiles, and amphibians.

3 PRE-CONSTRUCTION MITIGATION MEASURES

3.1 Badgers

Shortly prior to works commencing, a pre-construction check for evidence of badger setts within the site must be carried out by a suitably qualified ecologist. If any evidence of a sett is identified, works will need to be postponed until Natural England is contacted regarding the requirement to obtain a Badger CL35 Licence.

3.2 Reptiles

Prior to any other works commencing, a pre-commencement inspection of all suitable reptile habitat within the development impact zones must occur by a suitably qualified ecologist. This includes the scrub and ruderal habitats, and piles of rubble, debris material, and fallen deadwood. In the event any reptile is found, it must be relocated to suitable habitat outside of the development zone.

¹ The Ecology Co-op (2024). Ecological Assessment. – Harts Farm Way, Havant



4 CONSTRUCTION PHASE MITIGATION MEASURES

4.1 Toolbox Talk

Prior to works on site contractors should be delivered a toolbox talk by a suitably qualified ecologist outlining their responsibilities and emphasising the mitigation measures detailed within this report. This will include the habitat clearance methods to be implemented, to ensure compliance with legislation protecting wildlife species. The ecologist will also ensure that it is understood that habitat clearance work must only proceed under their guidance. A copy of this report should be available on site at all times. The contact details of The Ecology Co-op should be available on site in case of questions or issues arising of an ecological nature.

4.2 Dust Deposition and Pollution

To mitigate against the risk of high levels of suspended dust being produced, following periods of very dry weather or very windy days construction must be avoided where possible. Dust levels on the development footprint must be monitored closely and dust suppression must be carefully managed with dampening implemented through the use of hoses and sprinklers when there is a risk of elevated dust levels and a risk of deposition onto the nearby designated sites (Langstone Harbour SSSI, Solent Maritime SAC, Chichester and Langstone Harbours SSSI, SPA and Ramsar). Additionally, there must be no burning of vegetation or waste materials on site to ensure ash and other particulate matter does not settle within the designated sites.

4.3 Noise and Vibration

During the construction on site, noise and vibration impacts will be mitigated through the use of a temporary noise barrier. This must include Heras fencing (or similar) fitted with an Acoustic Barrier membrane installed along the site's boundaries to protect the nearby designated sites, and the line of trees which lies adjacent to the west. Additionally, machinery retrofitted with mufflers and silencing equipment must be used for groundwork. When machinery is not in use it must be switched off immediately and not left to idle as this will result in unnecessary noise and air pollution. Any materials must further be handled and placed with care to reduce noise and vibration.

4.4 Hydrology

To prevent pollution of the hydrological system of the designated sites, and the ditch that runs parallel to the western and northern boundaries of the site, all construction materials and especially concrete or fuel must be kept at least 10m away from the western, southern, and northern site boundaries and on an impermeable surface, with drip trays used and spill kits available to avoid the risk of contaminants leaching into the soil. Any wastewater run-off must also be directed to the nearest wastewater drain and away from the western, southern, and northern boundaries, and the designated sites and ditch.

4.5 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 the 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 minimize light spill onto any established or created semi-natural habitats;
- all street lighting lamp-posts will be limited to 3.5m in height and will have shields installed to focus light towards footpaths and roads only (see **Error! Reference source not found.** for example). No lamps will be allowed to emit light past horizontal (90 degrees from the ground). No external lights will be installed on new buildings above a height of 2m and all external lights will have shields to direct light to prevent light spill;
- 'dark corridors' must be established around the site boundary and retained hedgerow and trees through the development site as shown in **Error! Reference source not found.** below. This means that no street light columns shall be positioned within or adjacent to the no-light zones and all artificial lighting should be screened to direct light away from these areas;
- 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 minimize light spill;
- the frequency spectrum of light sources should be selected that has reduced attraction to insects.

4.6 Breeding Birds

All vegetation clearance of the scrub and ruderal habitat on site must be conducted outside of the nesting 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 an active nest is identified, a minimum exclusion zone for all works within a 5m radius of the nest must be established to protect it from disturbance until the young have fledged.

4.7 Dormice

All vegetation clearance of the scrub and ruderal habitat on site must be conducted under a watching brief by a licensed dormouse ecologist. In order to ensure compliance with legislation protecting dormice, a toolbox talk will be provided to the contractors on being vigilant for dormouse nests while carrying out the vegetation clearance. The advice of the ecologist must be adhered to under all circumstances.

During vegetation clearance of the scrub habitat on site:

- all vegetation will be cleared slowly and methodically using hand-held trimmers and chainsaws as appropriate, only following a thorough hand search;
- the ecologist will undertake thorough fingertip searches of the vegetation being removed to confirm the absence of any dormouse nests.

Should any dormice or evidence of dormice be identified at any time, works must cease immediately until a European Protected Species (EPS) licence is obtained from Natural England.

As dormice are nocturnal, it is important that an Ecologically Sensitive Lighting Scheme is implemented, as for bats (see Appendix 4).



4.8 Reptiles

All vegetation clearance on site must be overseen by a suitably qualified ecologist. Prior to any other works commencing, the scrub and ruderal habitats will be subject to a 'destructive search' to remove any individual reptiles that may be present and render the habitats unsuitable. A destructive search must take place between March and October, with average temperatures between 9°C and 18°C.

- any suitable resting places will be carefully removed by hand, overseen by an ecologist. this includes piles of rubble, debris material, and fallen deadwood.
- the habitat will then be thoroughly hand searched by a suitably qualified ecologist, in order to look for any reptiles or other animals, focussing on any debris or leaf-litter etc, that might be present.
- an initial trim of the vegetation will reduce the grass to 15cm in height to encourage any reptiles to move out of the area.
- the habitat will then be searched again by the ecologist, before the second trim reduces the grass height to 5cm or below, rendering the habitat unsuitable.
- both passes will be conducted from the centre of the site towards the boundaries to allow a natural migration of animals away from the area of construction.
- the areas must then be maintained at this height or below until works commence so that reptiles are not encouraged to move back onto the site.
- it is imperative that all cuttings are raked away and stored off the construction footprint to prevent hibernacula for reptiles from forming.

In the unlikely event a reptile is found, it must be captured and taken to a designated safe area outside the habitat clearance.

4.9 Hedgehogs

To avoid direct impacts on any hedgehogs that may be within the scrub habitat which is to be removed, all suitable hedgehog habitat, including scrub and log piles, must be sensitively searched by a suitably qualified ecologist prior to destruction. If a hedgehog is found it must be moved to a suitable area bordering the site, which is well connected to similar habitat.

Additionally, any excavations must be covered-up overnight to prevent hedgehogs and any other small mammals from falling in. If this is not possible then a board must be placed in the hole/pit so that any wildlife can use this to escape. In addition, all food and waste food must be securely stored overnight. All tools and hazardous materials must also be stored securely.



5 BIODIVERSITY ENHANCEMENT MEASURES

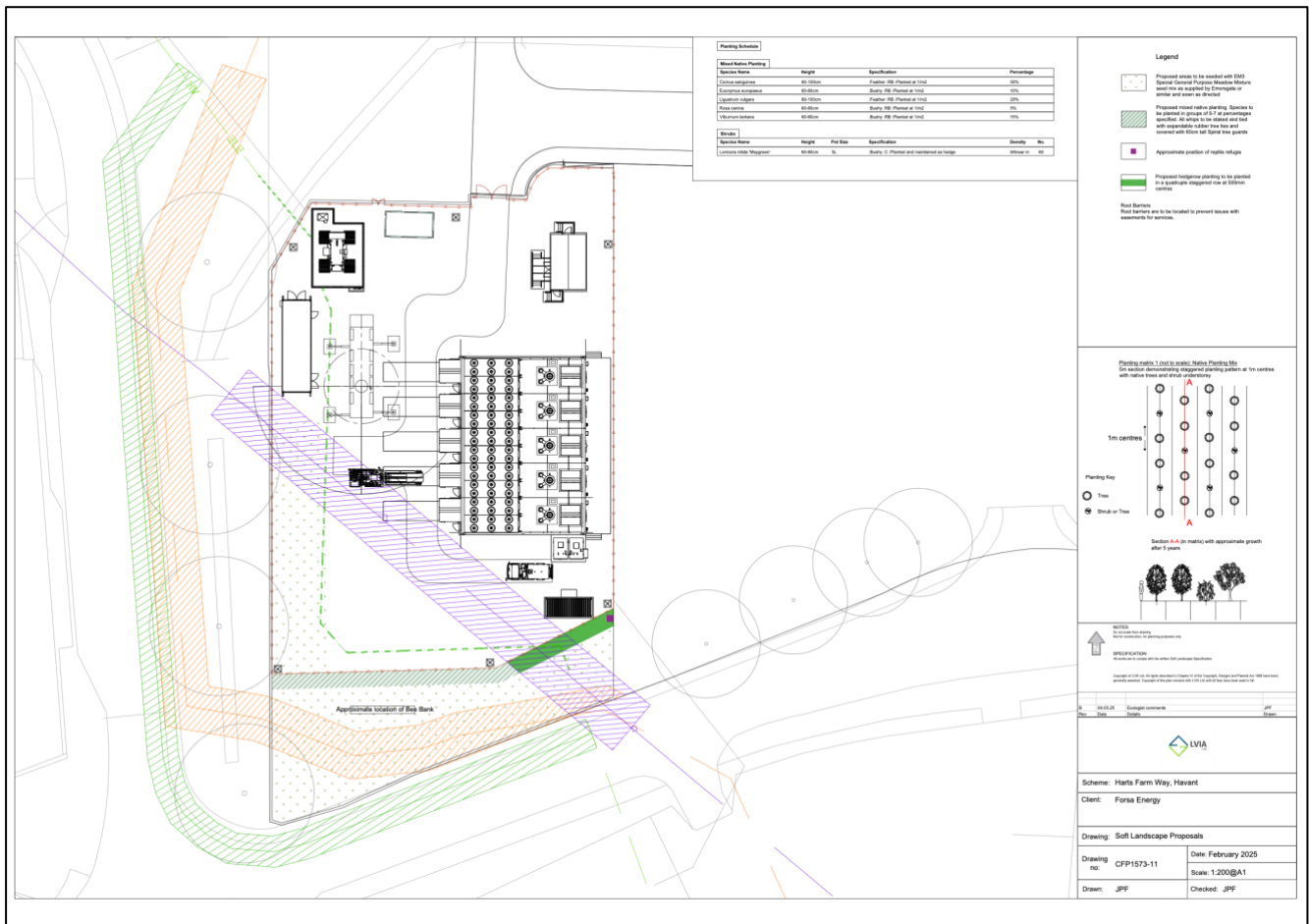


Figure 4. Soft landscaping plan for the site including biodiversity enhancement measures. Plan courtesy of LVIA Ltd. dated February 2025 (drawing no. CFP1573-11).

Due to the lack of mature trees, buildings, and suitable fences within the site boundary, it is not possible to install bird or bat boxes to enhance the site.

5.1 Wildflower Meadow Creation

The planting of native wildflowers increases biodiversity by encouraging insect diversity and improving foraging for bats, birds and small mammals. Therefore, a wildflower mixture will be planted in the southern and western sections of the site, consisting of a mixture of wildflowers and grasses (Figure 4). A suitable seed mixture such as 'EM3 – General Purpose Meadow Mixture' can be used, available from Emorsgate seeds (www.wildseed.co.uk). Table 1 details the composition of this mixture. Please note, other commercial seed mixes are available. Night-flowering plants, which attract night-flying insects, should be particularly included within the seed mixture as these enhance the site for foraging bats. A list of suitable plants can be found in the 'Encouraging



Bats' leaflet provided by the Bat Conservation Trust².

Table 1. Composition of 'EM3 – General Purpose Meadow Mix'.

%	Latin name	Common name
Wildflowers		
0.5	<i>Achillea millefolium</i>	Yarrow
1	<i>Agrimonia eupatoria</i>	Agrimony
0.5	<i>Betonica officinalis</i> - (<i>Stachys officinalis</i>)	Betony
2	<i>Centaurea nigra</i>	Common Knapweed
1	<i>Daucus carota</i>	Wild Carrot
1.4	<i>Echium vulgare</i>	Viper's-bugloss
0.2	<i>Filipendula ulmaria</i>	Meadowsweet
0.4	<i>Gallium album</i>	Hedge Bedstraw
0.4	<i>Galium verum</i>	Lady's Bedstraw
0.5	<i>Geranium pratense</i>	Meadow Crane's-bill
0.4	<i>Lathyrus pratensis</i>	Meadow Vetchling
1.4	<i>Leucanthemum vulgare</i>	Oxeye Daisy
0.4	<i>Lotus corniculatus</i>	Birdsfoot Trefoil
1	<i>Malva moschata</i>	Musk Mallow
0.4	<i>Medicago lupulina</i>	Black Medick
0.2	<i>Onobrychis viciifolia</i>	Sainfoil
0.2	<i>Pastinaca sativa</i>	Wild Parsnip
1.4	<i>Plantago lanceolata</i>	Ribwort Plantain
0.6	<i>Poterium sanguisorba ssp sanguisorba</i>	Salad Burnet
1	<i>Primula veris</i>	Cowslip
1.5	<i>Prunella vulgaris</i>	Selfheal
1.5	<i>Ranunculus acris</i>	Meadow Buttercup
0.2	<i>Ranunculus bulbosus</i>	Bulbous Buttercup
0.3	<i>Rumex acetosa</i>	Common Sorrel
0.4	<i>Scabiosa columbaria</i>	Small Scabious
0.4	<i>Silene dioica</i>	Red Campion
0.4	<i>Silene vulgaris</i>	Bladder Campion
0.2	<i>Taraxacum officinale</i>	Dandelion
0.2	<i>Vicia cracca</i>	Tufted Vetch
Grasses		
8	<i>Agrostis capillaris</i>	Common Bent
28	<i>Cynosurus cristatus</i>	Crested Dogstail
24	<i>Festuca rubra</i>	Red Fescue
4	<i>Phleum bertolonii</i>	Smaller Cat's-tail
16	<i>Poa pratensis</i>	Smooth-stalked Meadow-grass

Good ground preparation is essential to the success of establishing the seed mix, which will involve rotavating the ground to create an area of largely bare land to allow the seed mix to establish. This will be followed by the surface sowing of a suitable seed mix between late August and the end of September, during mild and wet

² The Bat Conservation Trust (2015). *Encouraging Bats*



weather, or during mid-March to mid-May, when the ground has sufficient moisture and there is very little risk of frosts. This will ensure the best conditions for seedling establishment.

5.2 Hedgerow Creation

A hedgerow consisting of native shrubs will be planted along the southern section of the internal fence. Due to the subterranean gas easement, the eastern portion of this hedgerow will consist of shallow rooting ornamental species to ensure that root systems do not impact the easement, and vegetation can be temporarily removed if necessary for access. These ornamental hedgerow species will consist of non-invasive, flowering shrubs. This will provide increased nesting opportunities for birds and foraging resources for invertebrates, small mammals and birds.

5.3 Hibernaculum Creation

A small hibernaculum will be created in the south-eastern section of the site, adjacent to the internal fence, ornamental hedgerow and wildflower meadow, to provide refuge and hibernation opportunities for reptiles and amphibians. This can be built from logs and branches, piled on top of each other, with grass cuttings, earth and turf laid over the top to provide insulation (see Figure 4). This hibernaculum will also provide benefits for wasps, solitary bees and other insects in the form of dead wood.

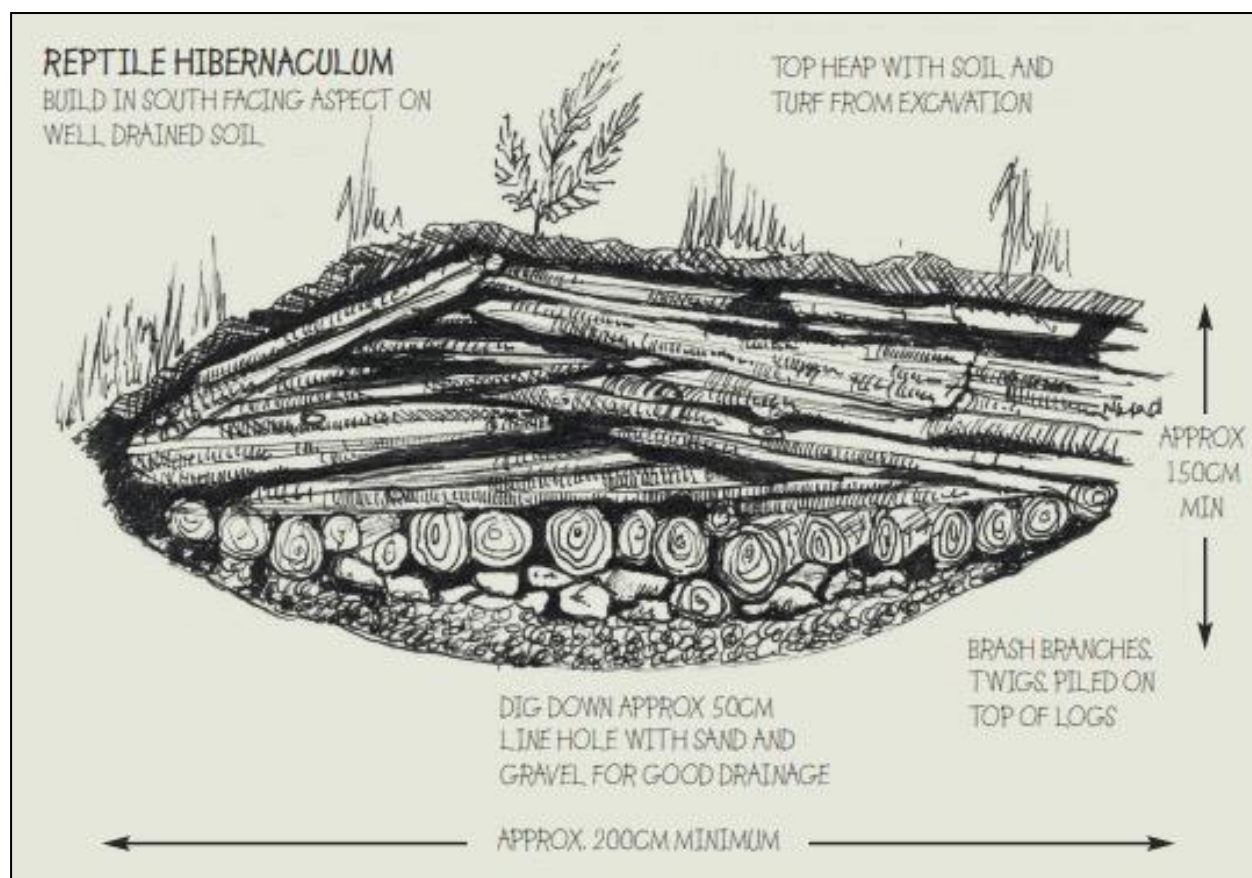


Figure 4. Illustration on how to build a reptile hibernaculum. Image taken from the 'Amphibian and Reptiles Groups of the United Kingdom Advice Note 11', courtesy of Nigel Hand from Amphibian and Reptile Groups of UK (ARG UK).



5.4 Bee Bank Creation

A bee bank will be created in the southern portion of the site, within the wildflower meadow (Figure 3) to provide enhancement for bees. To create the bee bank, an earth-bund must be constructed, with a vertical cliff and small sand pit area in front which must be free of vegetation. The bank must be built in a south-facing crescent shape to allow the sun's heat to warm the soil. To create the bee bank, a suitable low fertility substrate such as sand or sub-soil must be used. If using sand, builders sand is recommended, as the grains are not uniform in size, which will help the bank stay together.

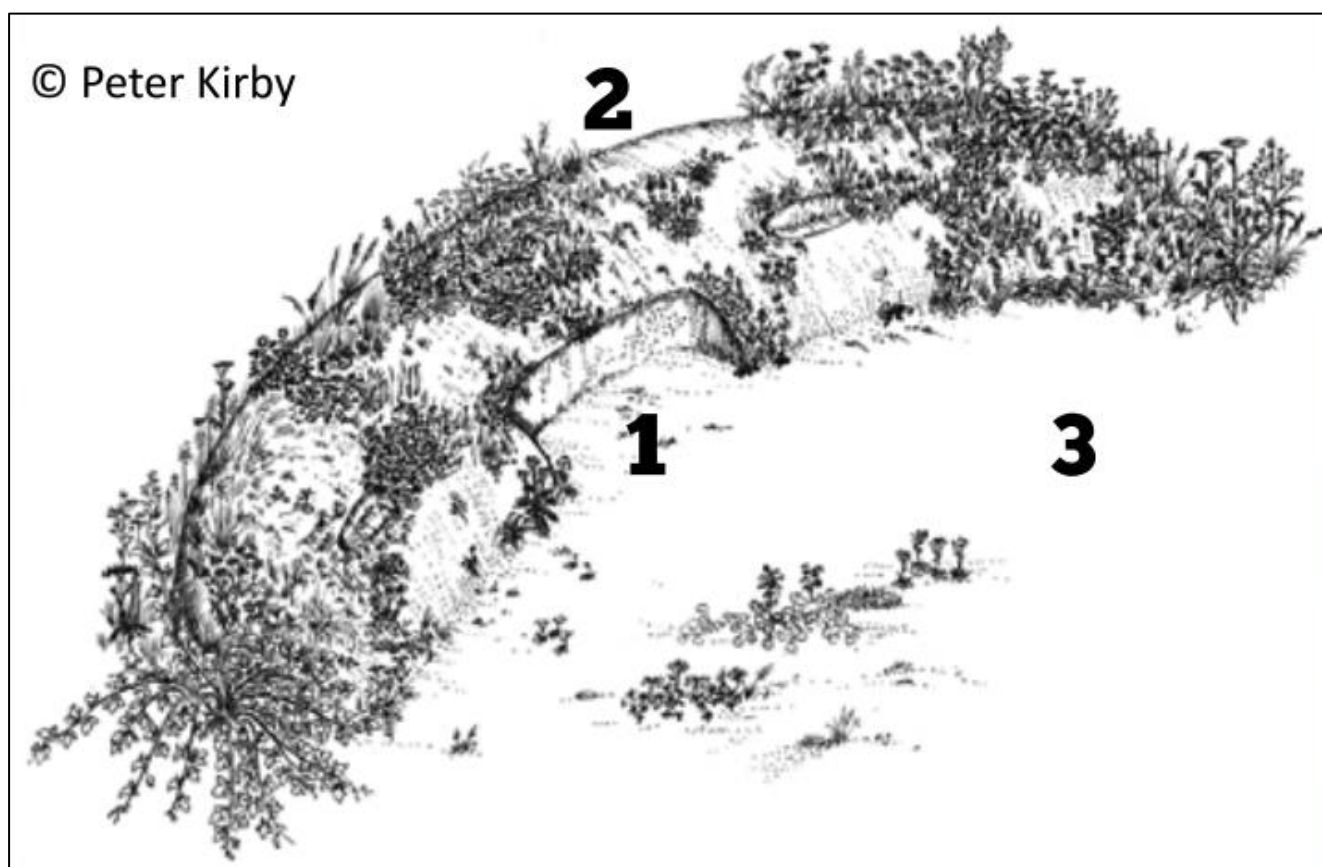


Figure 5. Illustration on how to build a bee bank. **1.** A clifflet should be cut into the bank to create vertical nesting space. **2.** If vegetation is present on the bank, it must be sparse and bare ground must always be visible. **3.** Bare ground should be present around the bank to provide additional nesting space. Image taken from the 'How to create a Bee Bank' created by Buglife.or.uk, courtesy of Peter Kirby.

6 POST CONSTRUCTION MANAGEMENT PLAN

6.1 Wildflower Meadow

Optimal Habitat

Areas with good species diversity across the site including both grassland and wildflowers. The wildflower habitat must support a variety of flowering plant species to provide colour, texture and ecological value.

Management

As part of on-going management, the wildflower habitat should be cut and gathered each year to a height of



approximately 40–60mm after flowering in July and August. This process can be carried out through strimming. This is important to ensure that species diversity of the area is maintained, and grass species do not become dominant. Where necessary, a second cut could be taken in March each year if the sward is growing too coarsely. The grassland should not be cut between the 1st of April and mid-August so that plants are given the opportunity to flower. A yearly check for invasive species and appropriate removal of any invasive species identified.

Once the wildflower habitat establishes, it will require little management.

6.2 Hedgerow

Optimal Habitat

A healthy semi-mature hedgerow across the site along the southern internal fenceline.

Yearly Management

Shrubs should be allowed to grow unhindered where possible. However, it may be necessary to trim back 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 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 is retained for over-wintering birds.

6.3 Hibernaculum

Once created, the hibernaculum must be left undisturbed to encourage its use by reptiles and amphibians. It must be maintained in perpetuity, and regularly checked for damage within the first 5-years that the development is in operation. If it is found to be damaged or removed, it must be replaced immediately.

6.4 Bee Bank

Once created, the bee bank must be left undisturbed to consolidate and encourage its use by bees for 12-18 months. It must be maintained in perpetuity, and regularly checked for damage and to ensure that it remains unobstructed by vegetation within the first 5-years that the development is in operation. If it is found to be damaged or removed, it must be replaced immediately.

Vegetation growing on the bank must be trimmed off during the winter months.



7 WORK SCHEDULE

Table 2 below provides the timetable to aid correct timing of the annual 'green asset' management at the site.

Table 2. Annual Work schedule for the 5-year management period.

Action for green assets	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Cutting of hedgerows		X										
Cutting and gathering of wildflower habitat during the first year					X	X	X	X	X	X		
Cutting and gathering of wildflower habitat on a yearly basis							X	X				
Keeping shrub saplings well-watered	X	X	X	X	X	X	X	X	X	X	X	X
Replacement planting of failed shrubs	X	X	X								X	X
Inspection of the hibernaculum for damage									X	X	X	
Inspection of bee bank for damage									X	X	X	



8 MONITORING AND REVIEW

Monitoring of the new biodiversity assets should be undertaken to determine the success or failure of each compartment through a site visit by a suitably qualified ecologist 5-years post-construction. If necessary, changes to management actions can be prescribed and, if plants fail to establish, replanting will be prescribed. Furthermore, if invasive species are identified within any of the compartments suitable control methods would be outlined in detail.

9 COMPETENCIES, STANDARD AND SPECIFIC WORKS

- The responsible person for the implementation of the management plan will be the site operator, and they are to ensure that all enhancement measures are completed in full.
- All tree works are to be undertaken by a suitably qualified arboriculturist.
- The installation of the bee bank and hibernaculum are to be undertaken or overseen by a suitably qualified ecologist.
- A site inspection of all green assets post-construction should only be undertaken by a suitably qualified ecologist.



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 *Musccardinus 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, badger, 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.

Protection of Badgers Act (1992)

The Badger *Meles meles* is afforded specific legal protection in Britain under the Protection of Badgers Act (1992), and Schedule 6 of the Wildlife and Countryside Act 1981 (as amended) (see above).

Under this legislation, it is a criminal offence to:

- intentionally kill, injure, take, possess, or cruelly ill-treat, a Badger, or to attempt to do so;
- interfere with a sett, by damaging or destroying it;
- to obstruct access to, or any entrance of, a badger sett; or
- to disturb a badger when it is occupying a sett.

A licence may be obtained from Natural England to permit certain prohibited actions for a number of defined reasons including interference of a sett for the purpose of development, provided that a certain number of conditions are met. Note that licenses are not normally granted for works affecting badgers between the end of November and the start of July.

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 185b, 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.*”

The Office of the Deputy Prime Minister (ODPM) Circular 06/2005, 2005)⁴. In accordance with the NPPF, it is

³ HM Government (2024). National Planning Policy Framework. Department for Communities and Local Government. Available online at: <https://assets.publishing.service.gov.uk/media/675abd214cbda57cacd3476e/NPPF-December-2024.pdf>.

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.



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.

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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 (2018) 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

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