



Elite Ecology

Passionate about Ecology

Cheshire Cheese, Penley



Desktop Study

April 2020



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13/04/2020	V1	Final Report	Proof Read

0. Executive Summary

This report has been prepared at the request of Mr. Roy Evison (R & C Homes Ltd.). Elite Ecology were commissioned to undertake a Desktop Study at the site located at Cheshire Cheese, Overton Road, Penley, Wrexham, LL13 0DA (Central OS Grid Reference: SJ 40382 40172).

Under the current proposals, a new vehicular access bridge is proposed to be constructed at the site. These works have the potential to cause both temporary and permanent impacts upon the habitats on site.

North Wales Environmental Information Service (COFNOD) were the local records centre for this project. A data search of all protected species and designated sites recorded within a 2km radius of the site was conducted. Please refer to section 3 to

The desktop study revealed four habitats on the site complex. The phase 1 habitat map, habitat codes and target notes for the site are located within Appendix D. The following habitats were identified (in habitat code order):

- A3 – Scattered Trees
- B.4 – Improved Grassland
- G.2 – Running Water
- J.3.6 – Buildings
- J4 – Hard Standing Ground

Designated Sites:

No designated sites that were revealed by the ecological data search provided by COFNOD fell on the proposed re-development site itself. Therefore, the proposed re-development will have no impact upon any local designated sites as the works are due to remain within the site boundary.

Habitats:

No habitats of conservation concern were located on the site itself. Therefore, the proposed scheme of works will not impact upon any rare or valuable habitats.

Species:

Please refer to section 5.3 for the initial provisional recommendations. This will be amended once the plans have been reviewed. In summary, the following actions are recommended:

- Amphibians – Undertake Edna surveys of the waterways.
- Badgers – Advisory note for construction phase.
- Bats – An inspection of vegetation for any potential roosting features and an advisory note regarding artificial lighting.
- Birds – Advisory note for vegetation removal
- Crustacean, Fish, Flora, Invertebrates and Reptiles – A walkover survey of the site to ascertain whether the habitats have the potential to support protected and/or rare specimens.
- Hedgehogs – Advisory notices for vegetation removal and the construction phase.
- Otters – Site Survey for viability to support species.
- Water Vole – Site Survey for viability to support species.

Contents

0. Executive Summary	2
1 Introduction.....	4
1.1 Report rationale.....	4
1.2 Site description and works	4
2 Survey Methodology.....	6
2.1 Desktop Survey	6
3 Desktop Survey Results	7
3.1 Statutory Sites	7
3.2 Non-Statutory Sites	7
3.3 Woodland Sites	7
3.4 Regionally Important Geological Sites (RIGS)	7
3.5 Species Records	7
4 Field Survey	9
4.1 Habitats	9
4.2 Species.....	9
5 Recommendations.....	12
5.1 Designated Sites	12
5.2 Habitats	12
5.3 Species.....	12
6 References	15
7 Appendices	16
Appendix A: Site Plans.....	17
Appendix B: The Ecological Data Tables.....	18
Appendix C: The Ecological Data Search Maps	21
Appendix D: Phase 1 Habitat Map.....	23
Appendix E: Biodiversity Legislation and Policy	24
Appendix F: Bats and Artificial Light	29
8 Notice to Readers: Conditions of this Report	30

1 Introduction

1.1 Report rationale

This report has been prepared at the request of Mr. Roy Evison (R & C Homes Ltd.). Elite Ecology were commissioned to undertake a Desktop Study at the site located at Cheshire Cheese, Overton Road, Penley, Wrexham, LL13 0DA (Central OS Grid Reference: SJ 40382 40172).

The main purpose of this assessment was to identify the potential for the proposed works site to support protected species. This will identify whether any additional site surveys or measures are required for all species.

1.2 Site description and works

The site is situated in the outskirts of the village of Penley, which is within the county borough of Wrexham. In the 2011 Census, it had a estimated population of 606 inhabitants.

The site itself measures approximately 34,900m². It consists of planted coniferous woodland, improved grassland, standing water and buildings. These habitats could be utilized by protected species.

Within the wider landscape, further habitats are present. These come in the form of semi-natural broad-leaved woodland, planted broad-leaved woodland, planted mixed woodland, dense scrub, semi-improved neutral grassland, marshy grassland, tall ruderal herb, acid/neutral flush, swamp, arable land, amenity grassland, gardens and bare ground. The habitats that surround the site also have the potential to be utilized by a variety of protected species.

Under the current proposals, a new vehicular access bridge is proposed to be constructed at the site. These works have the potential to cause both temporary and permanent impacts upon the habitats on site.

Figure 1: An aerial map showing the location of the survey site at (yellow star) in relation to some of the local landscape.

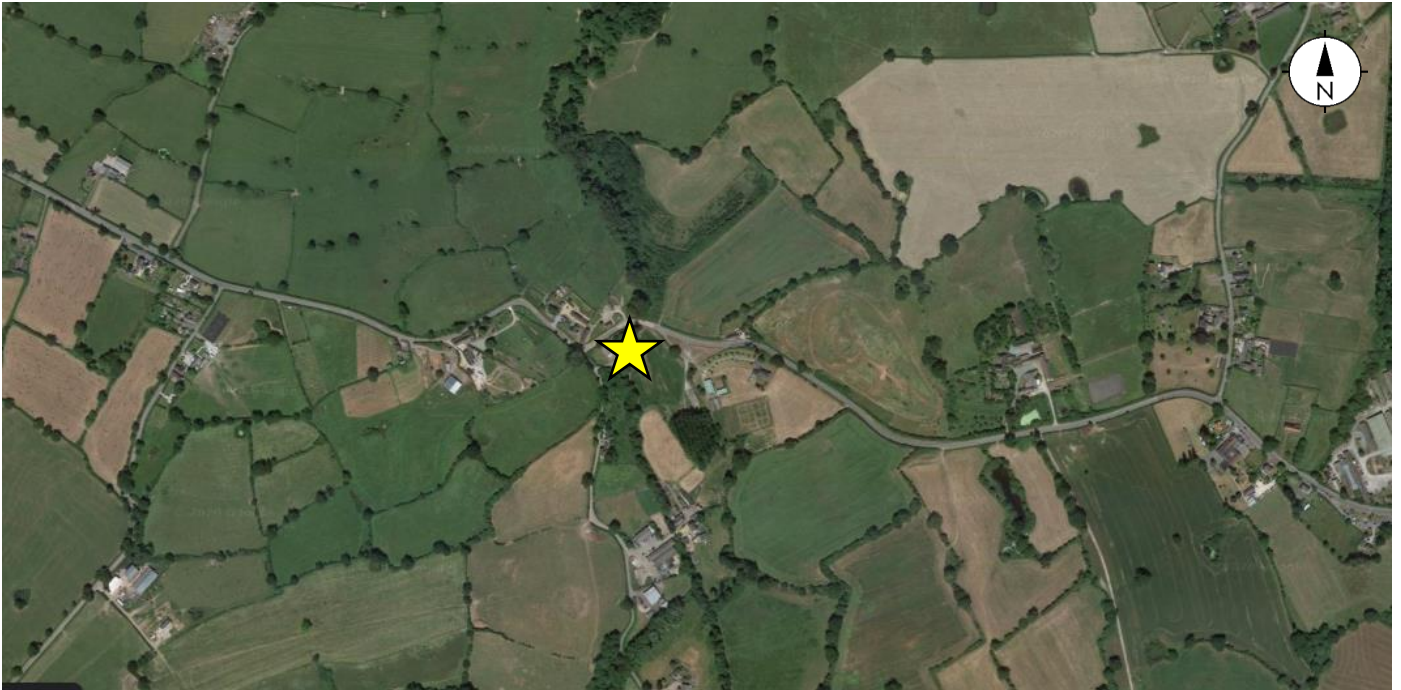
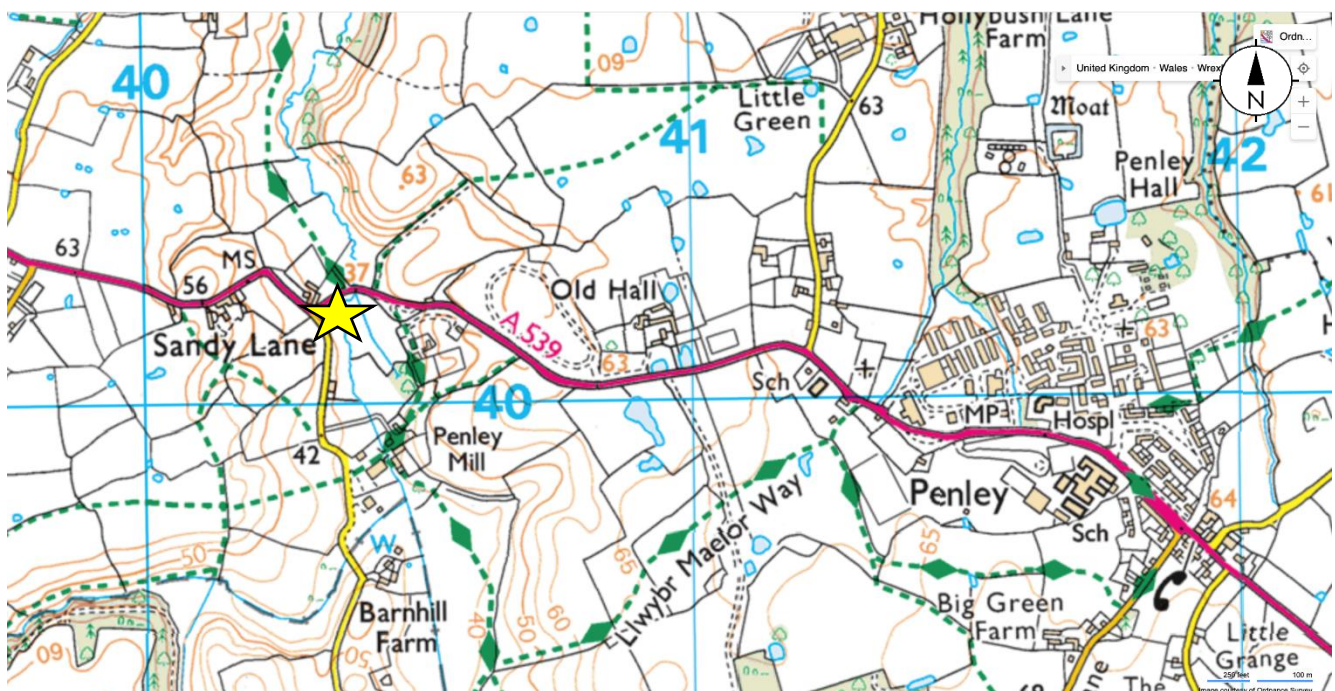


Figure 2: An OS map obtained from the Ordnance Survey website showing the location of the survey site at (yellow star).



2 Survey Methodology

2.1 Desktop Survey

A variety of resources were independently consulted to assess the known local records within the nearby area and the importance of the site within the local landscape from an ecological perspective. The resources used were the Local Records Centre, www.naturalengland.org.uk, www.ordnancesurvey.co.uk, Google Maps, Google Earth and Bing Maps. A search of other relevant nature conservation information was made through the use of the Multi-Agency Geographic Information for the Countryside (MAGIC) database.

The local records centre was contacted to provide data on all protected species and designated sites within 2km of the proposed development site. North Wales Environmental Information Service (COFNOD) was the relevant local record centre for this project.

Please be aware that no records do not prove absence and that it could just be down to a lack of survey data for the area.

This data is then extrapolated and assessed in context with the site and the proposed works to ascertain whether any impacts could be possible. If impacts are anticipated, the assessment will also recommend what further surveys, compensation or mitigation measures are prevalent based on the information gleaned from the desktop study.

3 Desktop Survey Results

3.1 Statutory Sites

The ecological data received from COFNOD confirmed the presence of no statutory protected sites (e.g. LNR, SSSI, SPA, SAC or Ramsar) within 2km of the site.

3.2 Non-Statutory Sites

The ecological data received from COFNOD confirmed the presence of no non-statutory protected sites within 2km of the site.

3.3 Woodland Sites

The information provided by COFNOD revealed 32 designated Ancient, Semi-natural Woodlands or Ancient Replanted Woodland sites within the 2km search radius. The closest of these is located approximately 488m to the east of the site.

3.4 Regionally Important Geological Sites (RIGS)

The information provided by COFNOD revealed no RIGS within the 2km search radius.

3.5 Species Records

3.5.1 Amphibians

Within the ecological data search provided by COFNOD, 179 records of amphibians were detected within the 2km search radius, belonging to five species. This includes 107 records of great crested newt (*Triturus cristatus*). A table with the collated amphibian species recorded can be found within Appendix B. The closest of these was of common toad (*Bufo bufo*) located on the site of interest. The closest record of great crested newt was located approximately 340m to the south.

3.5.2 Birds

Within the ecological data search provided by COFNOD, 27 bird species were detected within the 2km search radius. A table with the collated bird species recorded can be found within Appendix B. The closest of these was of kestrel (*Falco tinnunculus*) located approximately 190m to the south-east.

3.5.3 Crustacean

The ecological data search provided by COFNOD revealed records of no crustaceans within 2km of the survey site.

3.5.4 Fish

The ecological data search provided by COFNOD revealed records of no fish within 2km of the survey site.

3.5.5 Flora

Within the ecological data search provided by COFNOD, 48 floral species have been revealed in the search radius. A table with the collated flora species recorded can be found within Appendix B. The closest to the site was of cowbane (*Cicuta virosa*) located approximately 79m to the south of the site.

3.5.6 Invertebrates

The ecological data search provided by COFNOD revealed three invertebrate species within the 2km search radius. A table with the collated invertebrate species recorded can be found within Appendix B. The closest to the site was of emerald damselfly (*Lestes sponsa*) located approximately 226m to the west of the site.

3.5.7 Mammals

Within the ecological data search provided by COFNOD, there were nine mammal species detected within the 2km search radius, three of which are bat species. A table with the collated mammal species recorded can be found within Appendix B. The closest recorded mammal was of badger (*Meles meles*) located approximately 106m to the south.

3.5.8 Molluscs

The ecological data search revealed records of no mollusc records within 2km of the site.

3.5.9 Reptiles

The ecological data search revealed no records of reptiles within 2km of the site.

4 Field Survey

4.1 Habitats

The desktop study revealed that four habitats are present within the complex at the site. The phase 1 habitat map, habitat codes and target notes for the site are located within Appendix D. The following habitats were identified (in habitat code order):

4.1.1 A3 – Scattered Trees

Around the stream and along the existing access off Overton Road, some scattered trees are apparent.

4.1.2 B.4 – Improved Grassland

Parts of the proposed access route contains improved grassland. This habitat has limited potential to support protected species (please see sections 4.2 and 5.3).

4.1.3 G.2 – Running Water

The bridge is proposed to go over running water in the form of a stream. This habitat has the potential to support protected species (please see sections 4.2 and 5.3).

4.1.4 J3.6 – Buildings

The site contains approximately nine separate buildings. From the desktop survey these buildings cannot be accurately assessed for species potential.

4.1.5 J4 – Hard Standing Ground

Portions of the site are already hard standing ground that appear to be used for vehicular use.

4.2 Species

The desktop study revealed that the habitats on site have the potential to support some protected species. The following assessment has also taken into account the adjacent habitats and connectivity to the wider landscape for all protected and rare species.

4.2.1 Amphibians

There is evidence of amphibian species near the site and there is also suitable habitat for amphibians year-round. There are reports of great crested newts within 500m of the site and there is also suitable habitat for them to use as a corridor to reach the standing water on site. As such further measures are required (please see section 5.3).

4.2.2 Bats

Due to the desktop study being conducted, the suitability of the buildings to support bats could not be accurately assessed. However, the proposals are not going to affect any of the structures on site.

The habitats located on and around the site are suitable to support a number of foraging and commuting specimens. The closest known records of bats were of an unidentified species (*Chiroptera*) located approximately 628m to the west of the site. Due to this, further recommendations are apparent (please see section 5.3)

4.2.3 Birds

Due to the desktop nature of this report, the site could not be accurately assessed for bird life. However, there are habitats in and around the site that provide all the essential components for bird life and their presence is to be expected. Therefore, some precautions are required during the works (see section 5.3).

4.2.4 Crustaceans

The desktop study could not ascertain the presence/absence of any protected crustaceans. It should be noted that, as no plans have been visually seen by Elite Ecology, the type of water feature the proposed bridge will extend over is unknown.

4.2.5 Fish

The desktop study could not ascertain the presence/absence of any protected fish. It should be noted that, as no plans have been visually seen by Elite Ecology, the type of water feature the proposed bridge will extend over is unknown.

4.2.6 Flora

As this is a desktop study, the presence of any protected or rare flora at the survey site could not be ascertained.

4.2.7 Invertebrates

As this is a desktop study, the presence of any protected or rare invertebrate at the survey site could not be ascertained.

4.2.8 Mammals

Due to the desktop nature of this report, the site could not be accurately assessed for mammalian life. However, there is suitable habitat for them in the form of improved grassland and planted coniferous woodland that could be utilised by a number of species as a food source, a breeding ground and shelter. In addition to this there is also a large hedgerow the borders along the sites northern boundary that can provide cover for smaller mammals such as hare and hedgehog. Due to this further, recommendations are apparent (please see section 5.3).

4.2.9 Reptiles

No evidence of reptiles was found from the ecological data search, but this does not prove the absence of the species within the local landscape. However, the adjacent land could be utilised by reptiles for basking, but their presence cannot be assumed. Therefore, no further precautions are required during the works.

5 Recommendations

5.1 Designated Sites

No designated sites that were revealed by the ecological data search provided by COFNOD fell on the proposed re-development site itself. Therefore, the proposed re-development will have no impact upon any local designated sites as the works are due to remain within the site boundary.

5.2 Habitats

No habitats of conservation concern were located on the site itself. Therefore, the proposed scheme of works will not impact upon any rare or valuable habitats.

5.3 Species

Based on the information available at the production of this report, the following recommendations are apparent.

5.3.1 Amphibians

The works should proceed under a method statement in the unlikely event that amphibians are present within the working area beside the stream. This is due to the chance that suitable vegetative cover is apparent here for this species.

5.3.2 Badgers

Any trenches on site should be covered at night or a mammal ladder should be provided to ensure that if any mammals were to fall in, they would be able to escape, this should be large and sturdy enough for badgers and foxes.

5.3.3 Bats

It is unknown at present whether any vegetation removal will affect features with potential roosting features, such as rot holes in trees. Therefore, a further assessment of this is necessary prior to any vegetation removal.

If artificial lighting is proposed, including any security lighting, an artificial lighting plan is required. All lighting must avoid the features of interest for the local bat populations. This includes the waterways, trees, scrub and any invertebrate rich habitats. This is required due to the habitats within the local landscape meaning there is likely to be foraging and commuting bats within the local landscape.

5.3.4 Birds

All vegetation removal should be undertaken outside of the bird breeding season (the bird breeding season runs from March to August, inclusive). If vegetation is required to be removed during the bird breeding season, then a further inspection by a suitably qualified ecologist is required no more than 24 hours before this vegetation is removed. A further inspection inside the building is also needed to assess if there are any birds currently inside the building. This is to ensure that no active nest site is illegally destroyed, due to the protection afforded to all active bird nests under the Wildlife and Countryside Act 1981. If an active nest is identified, a 5m exclusion zone will be installed around the nest until the chicks are fledged. A suitably qualified ecologist would be required to identify and sign off a nest becoming inactive.

5.3.5 Crustacean

A walkover survey of the site is recommended to ascertain the value of the area to have the bridge installed. This is to assess whether the site of the proposed works has the potential to support any crustaceans.

5.3.6 Fish

A walkover survey of the site is recommended to ascertain the value of the area to have the bridge installed. This is to assess whether the site of the proposed works has the potential to support any fish.

5.3.7 Flora

A walkover survey of the site is recommended to ascertain the value of the area to have the bridge installed. This is to assess whether the site of the proposed works has the potential to support any flora.

5.3.8 Hedgehogs

If shrubs and trees are cleared between the 1st November and 31st March, then an inspection by a suitably qualified ecologist is required to ensure no hibernating hedgehogs are present on site.

It is recommended that precautionary measures are incorporated if construction is undertaken at other times of the year. This will be to create provisions for hedgehogs to escape from all trenches dug into the ground, by creating slopes or the providing ramps at the end of each working day. Additionally, any pipework left on site that is greater than 150mm in diameter will need to be planked off. Should this information be strictly adhered to, then the development works will not negatively impact on the local mammal populations.

5.3.9 Invertebrates

A walkover survey of the site is recommended to ascertain the value of the area to have the bridge installed. This is to assess whether the site of the proposed works has the potential to support any invertebrates.

5.3.10 Otter

Some otter (*Lutra lutra*) records have been revealed within the 2km search radius, and it cannot be concluded from the desktop study alone as to whether this species is using the site. The presence or absence of holts, couches and other characteristic features of this species cannot be deciphered from a desktop study alone. Therefore, a site visit should be conducted to assess the viability of the site for this species and note down any presence of this species on site or nearby.

5.3.11 Reptiles

Due to the presence of suitable habitat on and around the site, a walkover survey is recommended to ascertain the value and impacts of the proposed works.

5.3.12 Water Vole

As with otters, water vole (*Amphibius arvicola*) have been revealed within 2km of the site. It cannot be concluded from the desktop study alone as to whether this species is using the site. The presence or absence of burrows, latrines and other characteristic features of this species cannot be deciphered from a desktop study alone. Therefore, a site visit should be conducted to assess the viability of the site for this species and note down any presence of this species on site or nearby.

6 References

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7 Appendices

Appendix A: Site Plans

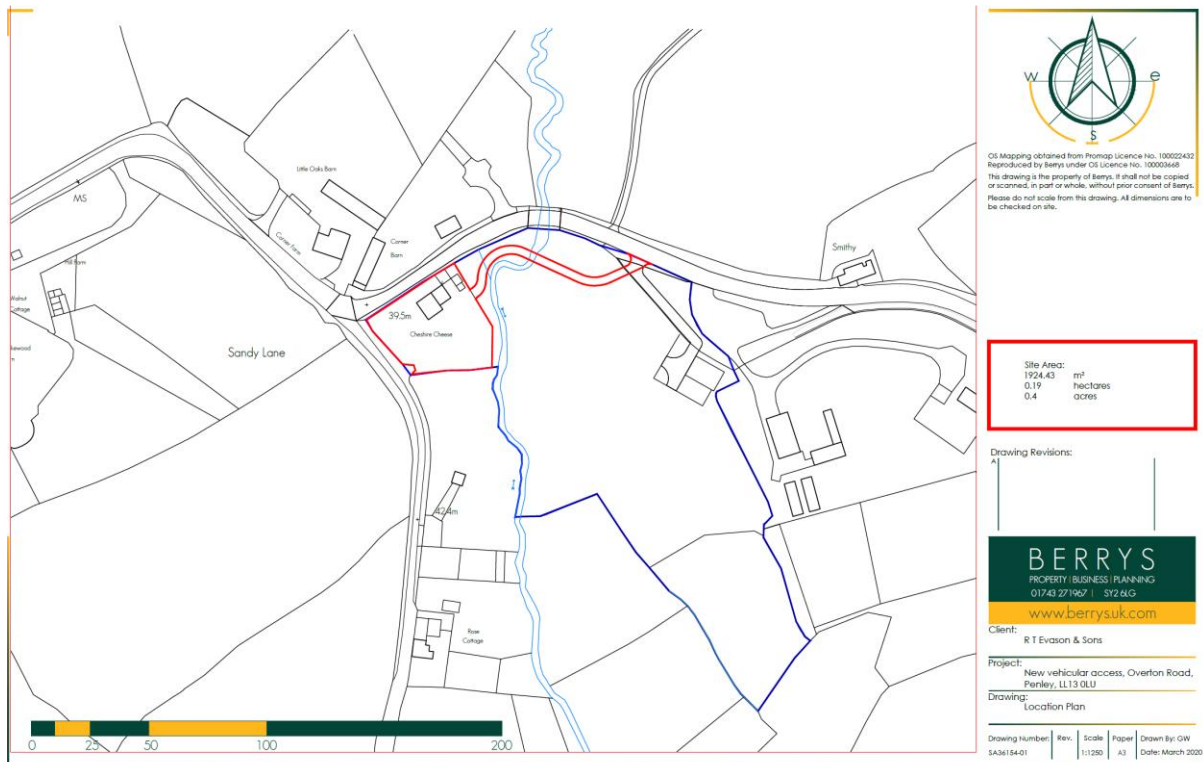
Appendix B: Desktop Study Table

Appendix C: Desktop Study Map

Appendix D: Phase 1 Habitat Map

Appendix E: Biodiversity Legislation and Policy

Appendix F: Bats and Artificial Lighting

Appendix A: Site Plans

Appendix B: The Ecological Data Tables

Amphibians	
Common Name	Latin Name
Common Frog	<i>Rana temporaria</i>
Common Toad	<i>Bufo bufo</i>
Great Crested Newt	<i>Triturus cristatus</i>
Palmate Newt	<i>Lissotriton helveticus</i>
Smooth Newt	<i>Lissotriton vulgaris</i>
Birds	
Common Name	Latin Name
Barn Owl	<i>Tyto alba</i>
Black-headed Gull	<i>Chroicocephalus ridibundus</i>
Brambling	<i>Fringilla montifringilla</i>
Bullfinch	<i>Pyrrhula pyrrhula</i>
Canada Goose	<i>Branta canadensis</i>
Coal Tit	<i>Periparus ater</i>
Curlew	<i>Numenius arquata</i>
Dunnock	<i>Prunella modularis</i>
Fieldfare	<i>Turdus pilaris</i>
Goldcrest	<i>Regulus regulus</i>
Herring Gull	<i>Larus argentatus</i>
Hobby	<i>Falco subbuteo</i>
House Sparrow	<i>Passer domesticus</i>
Kestrel	<i>Falco tinnunculus</i>
Lapwing	<i>Vanellus vanellus</i>
Long-tailed Tit	<i>Aegithalos caudatus</i>
Mallard	<i>Anas platyrhynchos</i>
Marsh Tit	<i>Poecile palustris</i>
Redwing	<i>Turdus iliacus</i>
Reed Bunting	<i>Emberiza schoeniclus</i>
Snipe	<i>Gallinago gallinago</i>
Song Thrush	<i>Turdus philomelos</i>
Starling	<i>Sturnus vulgaris</i>
Swallow	<i>Hirundo rustica</i>
Swift	<i>Apus apus</i>
Tree Sparrow	<i>Passer montanus</i>
Woodcock	<i>Scolopax rusticola</i>
Flora	
Common Name	Latin Name

Desktop Study

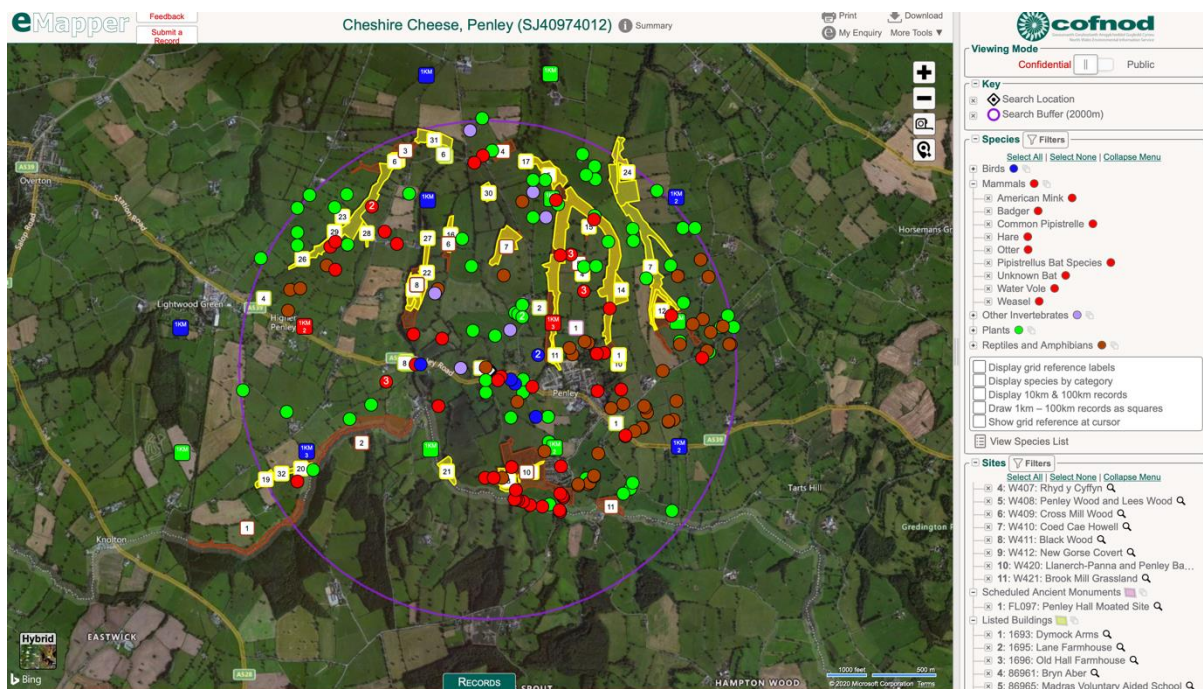
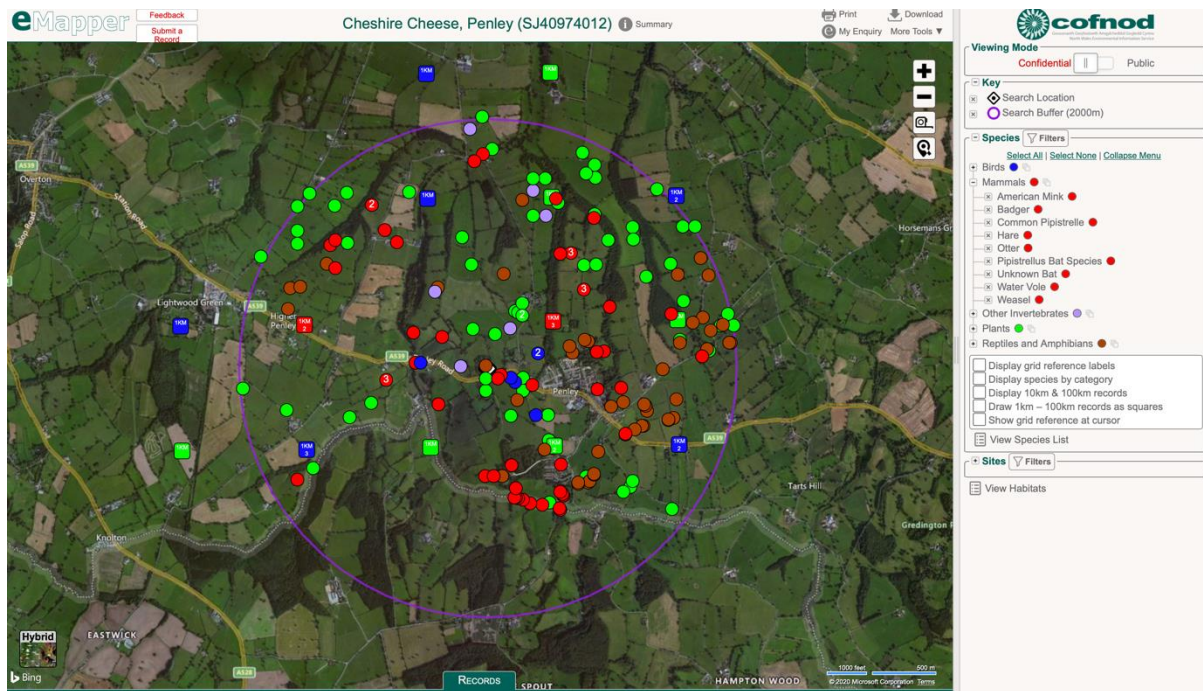
	<i>Populus nigra</i> agg.
	<i>Rhododendron ponticum</i>
Alternate Water-milfoil	<i>Myriophyllum alterniflorum</i>
Bladder-sedge	<i>Carex vesicaria</i>
Blue Water-Speedwell	<i>Veronica anagallis-aquatica</i>
Bluebell	<i>Hyacinthoides non-scripta</i>
Broad-leaved Osier	<i>Salix viminalis</i> x <i>caprea</i> = <i>S. x smithiana</i>
Canadian Waterweed	<i>Elodea canadensis</i>
Common Club-rush	<i>Schoenoplectus lacustris</i>
Cowbane	<i>Cicuta virosa</i>
Elecampane	<i>Inula helenium</i>
Fat Duckweed	<i>Lemna gibba</i>
Fig-leaved Goosefoot	<i>Chenopodium ficifolium</i>
Floating Water-plantain	<i>Luronium natans</i>
Greater Pond-sedge	<i>Carex riparia</i>
Grey Club-rush	<i>Schoenoplectus tabernaemontani</i>
Himalayan Cotoneaster	<i>Cotoneaster simonsii</i>
Himalayan Honeysuckle	<i>Leycesteria formosa</i>
Horned Pondweed	<i>Zannichellia palustris</i>
Hybrid Sweet-grass	<i>Glyceria fluitans</i> x <i>notata</i> = <i>G. x pedicellata</i>
Japanese Knotweed	<i>Fallopia japonica</i>
Large-leaved Lime	<i>Tilia platyphyllos</i>
Least Duckweed	<i>Lemna minuta</i>
Lesser Pondweed	<i>Potamogeton pusillus</i>
Lesser Water-plantain	<i>Baldellia ranunculoides</i>
Many-seeded Goosefoot	<i>Chenopodium polyspermum</i>
Montbretia	<i>Crocsmia pottsii</i> x <i>aurea</i> = <i>C. x crocosmiiflora</i>
New Zealand Pigmyweed	<i>Crassula helmsii</i>
Nuttall's Waterweed	<i>Elodea nuttallii</i>
Pepper-saxifrage	<i>Silaum silaus</i>
Pill Bryum	<i>Bryum violaceum</i>
Pink Water-Speedwell	<i>Veronica catenata</i>
Red Pondweed	<i>Potamogeton alpinus</i>
Sedge	<i>Carex otrubae</i> x <i>remota</i> = <i>C. x pseudoaxillaris</i>
Shiny-leaved Willow	<i>Salix pentandra</i> x <i>euxina</i> x <i>alba</i> = <i>S. x meyeriana</i>
Shore Horsetail	<i>Equisetum fluviatile</i> x <i>arvense</i> = <i>E. x litorale</i>
Spiny Restharrow	<i>Ononis spinosa</i>
Sweet-briar	<i>Rosa rubiginosa</i>
Tasteless Water-pepper	<i>Persicaria mitis</i>
Thin-spiked Wood-sedge	<i>Carex strigosa</i>
Thread-leaved Water-crowfoot	<i>Ranunculus trichophyllus</i>
Variegated Yellow Archangel	<i>Lamium galeobdolon</i> subsp. <i>argentatum</i>
Water Dock	<i>Rumex hydrolapathum</i>
Water Fern	<i>Azolla filiculoides</i>
Water-violet	<i>Hottonia palustris</i>
Welsh Poppy	<i>Meconopsis cambrica</i>
Wild Service-tree	<i>Sorbus torminalis</i>

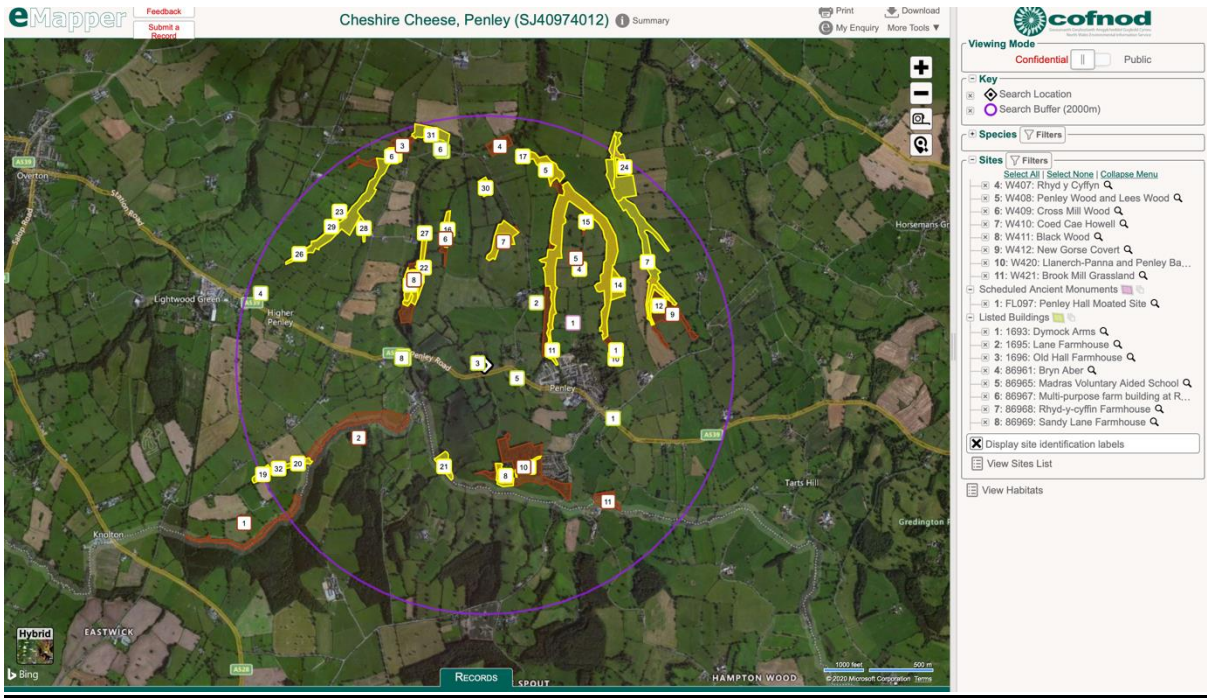
Desktop Study

Wood Club-rush	<i>Scirpus sylvaticus</i>
Invertebrates	
Common Name	Latin Name
Lesser Silver Water Beetle	<i>Hydrochara caraboides</i>
Emerald Damselfly	<i>Lestes sponsa</i>
Ruddy Darter	<i>Sympetrum sanguineum</i>
Mammals	
Common Name	Latin Name
American Mink	<i>Neovison vison</i>
Badger	<i>Meles meles</i>
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>
Hare	<i>Lepus europaeus</i>
Otter	<i>Lutra lutra</i>
Pipistrellus Bat Species	<i>Pipistrellus</i>
Unknown Bat	<i>Chiroptera</i>
Water Vole	<i>Arvicola amphibius</i>
Weasel	<i>Mustela nivalis</i>

Appendix C: The Ecological Data Search Maps

These maps have been produced by COFNOD. All rights pertaining to these maps belong to them.





Appendix D: Phase 1 Habitat Map

No phase 1 habitat map has been devised as Elite Ecology have not attended the site at the production of this report.

Appendix E: Biodiversity Legislation and Policy

General Legislation and Policy:

The framework of legislation and policy which underpins nature conservation in England. This is a material consideration in the planning process in England.

Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2010 as amended)

The Conservation of Habitats and Species Regulations 2017 consolidate and update the Conservation Regulations 1994 and the conservation of habitats and species regulations 2010 (and all their amendments). The Conservation of Habitats and Species Regulations 2017 are the principal means by which the EEC Council Directive 92/43 (The Habitats Directive) as amended is transposed into English and Welsh law.

The Conservation of Habitats and Species Regulations 2017 place duty upon the relevant authority of government to identify sites which are of importance to the habitats and species listed in Annexes I and II of the Habitats Directive. Those sites which meet the criteria are, in conjunction with the European Commission, designated as Sites of Community Importance, which are subsequently identified as Special Areas of Conservation (SAC) by the European Union member states. The regulations also place a duty upon the government to maintain a register of European protected sites designated as a result of EC Directive 79/409/EEC on the Conservation of Wild Birds (The Birds Directive). These sites are termed Special Protection Areas (SPA) and, in conjunction with SACs, form a network of sites known as Natura 2000. The Habitats Directive introduces for the first time for protected areas, the precautionary principle; that is that projects can only be permitted having ascertained no adverse effect on the integrity of the site. Projects may still be permitted if there are no alternatives, and there are imperative reasons of overriding public interest.

The Conservation of Habitats and Species Regulations 2017 also provide for the protection of individual species of fauna and flora of European conservation concern listed in Schedules 2 and 5 respectively. Schedule 2 includes species such as otter and great crested newt for which the UK population represents a significant proportion of the total European population. It is an offence to deliberately kill, injure, disturb or trade these species. Schedule 5 plant species are protected from unlawful destruction, uprooting or trade under the regulations.

The Wildlife and Countryside Act (WCA) 1981 (As amended)

The WCA, as amended, consolidates and amends pre-existing national wildlife legislation in order to implement the Bern Convention and the Birds Directive. It complements the Conservation (Natural Habitats. & c.) Regulations 1994 (as amended), offering protection to a wider range of species. The Act also provides for the designation and protection of national conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSIs).

Schedules of the act provide lists of protected species, both flora and fauna, and detail the possible offences that apply to these species.

The Countryside and Rights of Way (CRoW) Act 2000

The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments and the National Assembly for Wales to have regard for biodiversity, and provides increased powers for the protection and maintenance of SSSIs.

The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

The Natural Environment and Rural Communities (NERC) Act 2006

Section 40 of the NERC Act places a duty upon all local authorities and public bodies in England and Wales to promote and enhance biodiversity in all of their functions. Sections 41 (England) and 42 (Wales) list habitats and species of principal importance to the conservation of biodiversity. These lists supersede Section 74 of the CRoW Act 2000. These species and habitats are a material consideration in the planning process.

The Hedgerow Regulations 1997

The Hedgerow Regulations make provision for the identification of important hedgerows which may not be removed without permission from the Local Planning Authority.

UK Biodiversity Action Plan

The United Kingdom Biodiversity Action Plan (UKBAP), first published in 1994 and updated in 2007, is a government initiative designed to implement the requirements of the Convention of Biological Diversity to conserve and enhance species and habitats. The UKBAP contains a list of priority habitats and species of conservation concern in the UK, and outlines biodiversity initiatives designed to enhance their conservation status. Lists of Broad and Local habitats are also included. The priority habitats and species correlate with those listed on Section 41 and 42 of the NERC Act.

The UKBAP requires that conservation of biodiversity is addressed at a County level through the production of Local BAPs. These are complementary to the UKBAP, however are targeted towards species of conservation concern characteristic of each area. In addition, a number of local authorities and large organisations have produced their own BAPs. UKBAP and Local BAP targets with regard to species and habitats are a material consideration in the planning process.

Planning Policy (England) and National Planning Policy Framework

In early 2012, the National Planning Policy Framework (NPPF) replaced much previous planning policy guidance, including Planning Policy Statement 9: Biological and Geological Conservation. The government circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System, which accompanied PPS9, still remains valid. A presumption towards sustainable development is at the heart of the NPPF. This presumption does not apply however where developments require appropriate assessment under the Birds or Habitats Directives. The latest National Planning Policy Framework was updated in February 2019, with the section in relation to conserving the natural environment being located within section 15.

Section 15, on conserving and enhancing the natural environment, sets out how the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and, where possible, provide net gains in biodiversity. Opportunities to incorporate biodiversity gains into a development should be encouraged.

If a proposed development would result in significant harm to the natural environment which cannot be avoided (through the use of an alternative site with less harmful impacts), mitigated or compensated for (as a last resort) then planning permission should be refused.

Species Specific Legislation

This section contains a summary of legislation with relation to the species present or potentially present in the survey area. The reader should refer to the original legislation for definitive interpretation.

Nesting and Nest Building Birds

Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties.

Subject to the provisions of the act, if any person intentionally:

- kills, injures or takes any wild bird;
- takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
- takes or destroys an egg of any wild bird, he shall be guilty of an offence.

'Reckless' offences with regard to the disturbance of nesting wild birds included in Schedule 1 of the Wildlife and Countryside Act were added by the Countryside and Rights of Way Act 2000.

The Natural Environment and Rural Communities (NERC) Act 2006 places a duty on Government Departments to have regard for the conservation of biodiversity and maintains lists of species and habitats which are of principal importance for the purposes of conserving biodiversity in England and Wales. These lists include a number of bird species.

The reader is referred to the original legislation for the definitive interpretation.

Bats

All species of bat are fully protected under a variety of domestic, European and international legislation and conventions. These include:

- Bern Convention (Appendix II)
- Bonn Convention (Appendix II)
- Conservation Regulations (Northern Ireland) 1995
- Conservation of Habitats and Species Regulations 2010
- Countryside Rights of Way Act 2000
- Eurobats Agreement
- Habitats Directive (Annexes IV and II)
- Habitats Regulations 1994 (as amended) Scotland
- NERC Act 2006
- Wildlife and Countryside Act 1981 (as amended)
- Wild Mammals Protection Act

In addition to this, some species have additional protection by being listed on the UK Biodiversity Action Plan (UKBAP).

The legislation afforded to bats makes it illegal to possess or control any live or dead specimens, to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a bat while it is occupying a structure or place which it uses for that purpose.

All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), which protects birds, nests, eggs and nestlings from harm. In addition to this, some rarer species, such as barn owls are afforded extra protection.

National Planning Policy Framework, Section 15:

The published framework in 2019 replaces the previous Planning Policy Statement 9 and National Planning Policy (dated 2012).

Section 15: Conserving and enhancing the natural environment reaffirms the government's commitment to maintaining green belt protections and preventing urban sprawl, retains the protection of designated sites and preserves wildlife. It also aims to improve the quality of the natural environment and halt declines in species and habitats, protects and enhances biodiversity and promotes wildlife corridors.

Biodiversity 2020:

This sets out to halt overall biodiversity loss and support healthy well-functioning ecosystems by establishing coherent ecological networks, with more and better places for nature, to the benefit of wildlife and people. The government's policy is aimed at individuals, communities, local authorities, charities, business and government, which all have a role to play in delivering Biodiversity 2020.

Reptiles

All six native reptiles within Great Britain are legally protected, with the extent of protection varying dependent upon their rarity and conservation importance.

Those that receive full protection under the Wildlife and Countryside Act 1981 (as amended) are the rare sand lizard and smooth snake. These species also receive protection under the Conservation (Natural Habitats &c.) Regulations 1994 (also referred to as the Habitats Directive). This means that they are protected from deliberate disturbance, killing, injury or capture and the habitat in which they live is also fully protected against damage or destruction. Any activity involving disturbance or damage to habitats utilised by sand lizards or smooth snakes would require a licence issued by the Department of the Environment, Food and Rural Affairs (DEFRA) following consultation with the statutory nature conservation organisation (Natural England).

The remaining four reptile species are 'partially protected' under the Wildlife and Countryside Act 1981 (as amended), with these species being slow-worm, common lizard, grass snake and adder. This means that these species are protected against intentional killing, injuring and against sale, but their habitat is not protected. In planning terms this means that the presence of these species is a material consideration and there is a requirement to ensure that any reptile interest is safeguarded. If a proposed development is likely to have an impact on these reptiles, then the statutory nature conservation organisation must be notified, particularly if capture and translocation is being proposed. In some parts of the UK, sites that support common reptile species such as common lizards and slow-worms can qualify as County Wildlife Sites. Sites of this designation may receive protection in planning policy.

Non-Native Floral Species

It is an offence under schedule 9 of the Wildlife and Countryside Act 1981 (as amended) to plant or otherwise cause non-native flora to grow in the wild. This includes the transportation of earth that has previously had non-native species growing and includes the spread of the species.

All stands of non-native floral species need to be disposed of safely at a licenced landfill site according to the Environmental Protection Act (Duty of Care) Regulations 1991.

Appendix F: Bats and Artificial Light

Artificial lighting is known to affect bat's roosting and foraging behaviour, with lighting resulting in a range of impacts that includes roost desertion (BCT, 2009), delayed emergence of roosting bats (Downs et al., 2003), increased activity of some bat species and decreased activity by others (Stone et al., 2012).

An experimental approach using LED units, demonstrated that relatively fast-flying bat species, including the common pipistrelle, showed no significant impacts as a result of new artificial lighting, even when lighting was set at relatively high levels close to 50 lux.

In contrast, slow flying bats such as the myotis bats (*Myotis* spp.) showed sharp reductions in presence, even at low light levels of 3.6 lux (Stone et al., 2012).

Current recommendations for all bat species specifies that no bat roost should be directly illuminated.

Due to the impacts of lighting, mitigation and sensitive lighting design schemes are required for projects where bats are present. These should include bat friendly lighting plans that should aim to avoid lighting wherever possible. If this is not possible, then the minimisation of any lighting impacts is required by adopting the following measures:

➤ **To introduce lighting curfews or use of PIR sensors.**

Lighting curfews can be an effective way of avoiding impacts on bats. These curfews may involve either turning off lighting or dimming light units at specific times of the night, dimming units at key times of the year, providing the luminaire allows for this option via a control unit. Lighting to be triggered by PIR sensors can be expected to be illuminated only when required and for a low proportion of time.

➤ **To consider no lighting solutions where possible.**

Options such as white lining, good signage and LED cats eyes should be considered as preferable. Reflective fittings may help make use of headlights to provide any necessary illumination in some areas.

➤ **To use only high pressure sodium or warm white LED lamps where possible.**

High pressure sodium and warm white LED lamps emit lower proportions of insect attracting UV light than mercury, metal halide lamps and white LED lighting. Generally, lamps should have a lower proportion of white or blue wavelengths, with a colour temperature <4200 kelvin recommended (BCT, 2014).

➤ **To minimise the spread of light.**

The light spread should be kept at or near horizontal to ensure 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. Baffles, hoods, louvres and shields should be used where necessary to reduce light spill.

➤ **To consider the height of the lighting column.**

While downward facing bollard lighting is often preferable, it should be noted that a lower mounting height does not automatically reduce impacts to bats as bollard lighting can often be designed to provide up-lighting. Where bollard lighting is considered to be the most appropriate system, bollard spacing or unit density should be kept to a minimum and units should be fitted with the appropriate hoods/deflectors to reduce any up-lighting.

➤ **To avoid reflective surfaces below lights.**

The polarisation of light by shiny surfaces attracts insects increasing bat activity (BCT, 2012). Consequently, surface materials around lighting require consideration.

8 Notice to Readers: Conditions of this Report

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No reliance should be made on any such comments in relation to the structural integrity of the features located on the surveyed site. All information within the report is based solely on evidence that has been found on site during the service provided. No individual opinion or inference will be made other than that of the suitably qualified ecologist appointed to the project.