# Berthengron Farm, Sontley
# Net Biodiversity Benefit Plan

**Prepared for Berrys**

**September 2024**

**Rev00**

***TURNSTONE ECOLOGY LIMITED***

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## *SURVEY AND REPORT VALIDITY*

It is important that planning decisions are based on up-to-date ecological reports and survey data. However, it is difficult to set a specific timeframe over which reports or survey data should be considered valid, as this will vary in different circumstances. In some cases there will be specific guidance on this (such as for the age of data which may be used to support an EPS licence application) but in circumstances where such advice does not already exist, the Chartered Institute of Ecology and Environmental Management (CIEEM) has provided the general advice set out below.

| *Age of Data / Survey / Report* | *Validity* |
|---|---|
| **Less than 12 months** | Likely to be valid in most cases. |
| **12-18 months** | Likely to be valid in most cases with the following exceptions:<br>• Where a site may offer existing or new features which could be utilised by a mobile species within a short timeframe;<br>• Where a mobile species is present on site or in the wider area, and can create new features of relevance to the assessment;<br>• Where country-specific or species-specific guidance dictates otherwise. |
| **18 months to 3 years** | A professional ecologist will need to undertake a site visit and then review the validity of the report.<br>Some or all of the other ecological surveys updated. |
| **Protected Species Licensing** | Licence applications usually only possible using data less than 2 years old |

The likelihood of surveys needing to be updated increases with time and is greater for mobile species or in circumstances where the habitat or its management has changed significantly since the surveys were undertaken. Factors to be considered include (but are not limited to):

- Whether the site supports, or may support, a mobile species which could have moved on to site, or changed its distribution within a site;
- Whether there have been significant changes to the habitats present (and/or the ecological conditions/functions/ecosystem functioning upon which they are dependent) since the surveys were undertaken, including through changes to site management;
- Whether the local distribution of a species in the wider area around a site has changed (or knowledge of it increased), increasing the likelihood of its presence.

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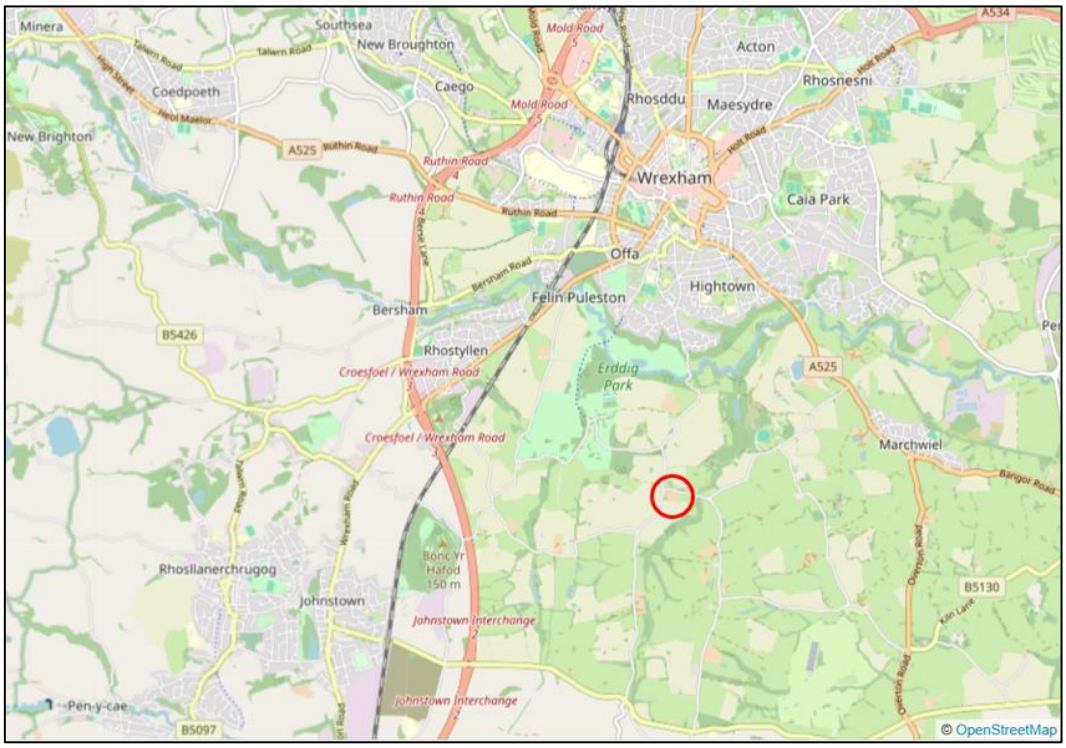
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# *1 INTRODUCTION*

## 1.1 General

This Net Biodiversity Benefit Plan has been completed in connection with the proposed construction of an agricultural building at Berthengron Farm, Sontley, Wrexham, LL13 0UY (OS Grid Location SJ 33484 47290). The location of the proposed development site is shown in *Figure 1*.

*Figure 1. Location of proposed development*




## 1.2 Project Background

The proposed development site is located on the eastern side of Berthengron Farm and comprises a rectangle of land adjacent to an existing agricultural building (*Figure 2*). The proposals involve the construction of an agricultural building adjacent to existing agricultural buildings.

The site boundaries are formed by an existing farm building to the west, farmyard to the north and hedgerows with wire fencing to the east and south. The site is bordered by the existing farm buildings of Berthengron Farm to the north and west and agricultural fields to the south and east. The is a minor road located to the north of the site.

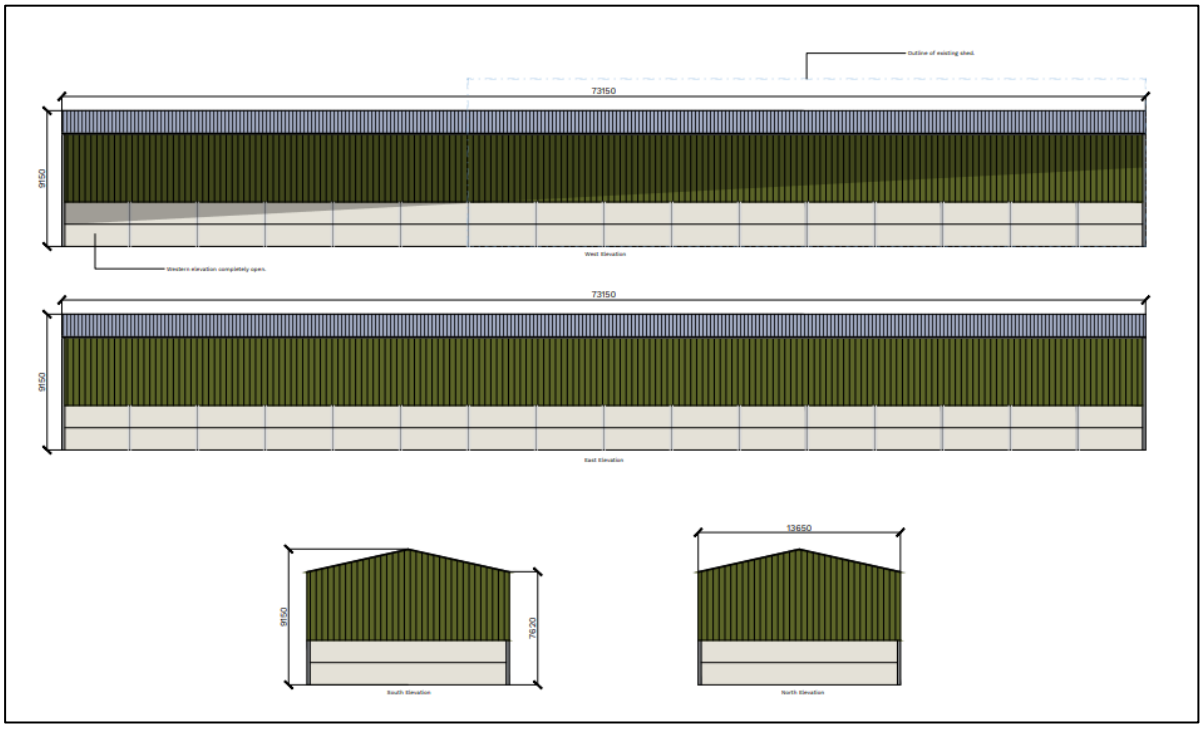
The wider landscape is dominated by agricultural fields, farms and Erddig National Trust Site to the north-west, agricultural fields and scattered ponds to the west and agricultural fields and a watercourse to the east. The city of Wrexham is located approximately 1.5 km to the north.

Planning permission for the erection of agricultural building for general storage has been granted by Wrexham County Borough Council (*Ref: MAR P/2023/0312*) (*Figure 2 and 3*).

*Figure 2. Proposed development site (red line boundary) www.google.com/maps (2024)*



*Figure 3. Proposed development*




## 1.3 Purpose of Report

This Net Biodiversity Benefit Plan relates to following ecological related conditions for the proposed development at Berthengron Farm, Sontley. The plan specifically relates to discharging *Condition 3*, as referenced below:

*Condition 3: No development shall commence until a detailed Net Biodiversity Benefit Plan has been submitted to and approved in writing by the Local Planning Authority. The approved measures shall be fully implemented prior to the first use of the building and shall be retained as such for the lifetime of the development.*

**Reason: To ensure the development delivers net benefit to biodiversity in accordance with Paragraph 6.4.5 of Planning Policy Wales (Edition 11).**

This document details ecological mitigation and enhancement measures that will also need to be completed and a copy of this document is to be kept on site to provide information on the sensitive habitats and protected species potentially impacted.

# *2 HABITAT*

The following habitats were identified within the proposed development site;

- Ephemeral and Tall Ruderal
- Hedgerow (native)
- Spoil heap
- Hardstanding
- Buildings

## 2.1 Ephemeral and Tall Ruderal

The north-eastern corner and eastern side of the proposed development are dominated by ephemeral and tall ruderal vegetation (*Plate 1*). See *Appendix 1* for species present.

*Plate 1. Ephemeral and tall ruderal within proposed development site.*



## 2.2 Hedgerow

The eastern boundary is formed by post and wire fencing and a native hedgerow. The established hedgerow was transplanted two years ago and comprises mainly of Hazel (*Corylus avellana*) and Hawthorn (*Crataegus monogyna*) but these woody plants have been dominated by ruderal species including Common Nettle *(Urtica dioica).* The full species composition of the hedge can be found in *Appendix 1*.

*Plate 2. Eastern boundary hedgerow*



## 2.3 Spoil heap

Multiple spoil heaps are located at the southern end of the proposed development site (*Plate 3*). The potential of the spoil heaps as habitat for reptiles and amphibians is discussed further in *Section 4.2*

*Plate 3. Spoil heaps within proposed development site*



## 2.4 Hardstanding

A hardcore track and concrete pad dominate the western half of the proposed development site, as seen in *Plate 4.* This has no botanical value.

*Plate 4. Area of hardstanding*



## 2.5 Buildings

A temporary structure (static caravan) is located at the northern end of the proposed development site. The temporary structure is set on a base of hardcore (*Plate 5*).

*Plate 5. Temporary structure located at the northern end of the proposed development site*



# *3 HABITATS: MANAGEMENT, MITIGATION AND ENHANCEMENT*

## 3.1 General

A site walkover was carried out on 1st August 2024 by Turnstone Ecology Ltd to provide information on habitats and protected species potentially present on site and inform appropriate ecological mitigation and protection.

The proposed development will directly affect an area of ephemeral and tall ruderal vegetation of limited ecological value as well as the spoil heaps and an area of hardstanding. The static caravan and other temporary structures will also be removed from the development area. There is also the possibility for other, adjacent, habitats to be indirectly affected by the proposals.

The following section details the potential impacts and appropriate mitigation, enhancement and management measures to ensure no negative impacts on notable habitats and ensure the proposals will result in an overall increase in biodiversity at the site.

## 3.2 Designated Sites

There is one statutory designated site within 2 km of the proposed development site. Sontley Marsh Site of Special Scientific Interest (SSSI) is located approximately 320m north-east of the site and is designated for its botanical interest.

## 3.3 Pollution Control Measures

A roadside ditch is located to the north of the proposed development site outside of the redline boundary.

Measures are to be put in place to ensure there are no significant negative impacts on the ditch and/or any drainage systems adjacent to site.
The proposed drainage and dirty water treatment methods must be followed to ensure that there are no negative impacts on the hydrology and ecology of the ditch adjacent to the site and that no dirty water will enter the ditch. Water treatment and discharge methods to be followed will include the following:

- Spill kits will be stored within the site compound during construction and all spills will be cleaned up accordingly;
- All chemical substances and hazardous materials will be stored in accordance with Environment Agency (EA) guidelines and all diesel fuel and other lubricants will be stored in appropriate containers within double bunded storage areas;
- Any washing of concreting vehicles will be done well away from any ponds, watercourses and/or drainage systems;
- Any re-fuelling and re-lubrication will only be completed in an approved area in which a spill kit is available; and

- Any incidents / accidents would need to be immediately reported to the EA.

The proposed drainage methods and mitigation measures will ensure there will be no significant negative impacts on the ditch and the species it support.

## 3.4 Ephemeral and Tall Ruderal

### *3.4.1 Impacts*

The proposal will result in the loss of an area of ephemeral and tall ruderal vegetation, the species composition of which can be seen in *Appendix 1*. This loss is unlikely to have a significant negative ecological impact but in order to enhance the site for biodiversity mitigation and enhancement measures have been proposed.

### *3.4.2 Mitigation and Enhancement*

A 'wildlife buffer' is to be created to the south of the proposed development. The 'wildlife buffer' will be created on the embankment shown in *Figure 4*, the embankment is to be seeded with a seed mix containing plant species such as Common Poppy (*Papaver rhoeas*), Cornflower (*Centaurea cyanus*), Common Knapweed (*Centaurea nigra*), Ox-eye Daisy (*Leucanthemum vulgare*), Meadow Buttercup (*Ranunculus acris*), Scabious sp., Bird's-foot Trefoil (*Lotus corniculatus*) and Yarrow (*Achillea millefolium*) which offer food sources for invertebrates.

*Figure 4. Embankment to the south of the proposed development to be seeded to create a 'Wildlife buffer' (red line = proposed development boundary, yellow line = proposed 'wildlife buffer')*



## 3.5 Hedgerow

### *3.5.1 Impacts*

No hedgerow will be removed as part of the proposed works.

### *3.5.2 Enhancement*

In order to improve the existing eastern boundary hedgerow, the management practices are to be updated to improve the quality and condition of this hedgerow. The ruderal species that are currently dominant in the hedge, such as the Common Nettle, must be removed to encourage hedging plants, such as Hazel and Hawthorn, to grow through successfully and thicken out. This will benefit invertebrates and small mammals.

A number of hedging plants in the existing hedgerow have failed, resulting in gaps within the hedgerow and these gaps will be planted with a mix of smaller native tree and hedge species. Species recommended for the hedgerow include Hawthorn, Blackthorn (*Prunus spinosa*), Crab Apple (*Malus sylvestris*), Hazel, Dog Rose (*Rosa canina agg.*), Rowan (*Sorbus aucuparia*), Dogwood (*Cornus sanguinea*), Honeysuckle (*Lonicera periclymenum*) and Guelder Rose (*Viburnum opulus*).

Mulchings or weed suppressing are to be used in the planted-up sections of the hedge to aid good establishment of woody species. Plants should be 80 – 100 cm bare root whips (1 + 1), planted between November and March and staked and protected with a bio-degradable treeguard to prevent pest damage.

The approved areas of groundworks will be confined to areas that will not impact on the root systems of the hedgerow. An appropriate buffer around the retained hedgerow, as detailed in BS5837:2012, will be established prior to works commencing on site and maintained during the construction period.

### *3.5.3 Management and monitoring*

All hedging plants will be monitored for a minimum 5 years to check establishment and if die-back or failure to establish occurs then re-planting will be required. Re-planting will replace the original species and be of a similar size. Once established the tree guards should be removed, if they have not degraded fully.

# *4 PROTECTED SPECIES MITIGATION AND ENHANCEMENT*

## 4.1 Summary of Protected Species Walkover Survey

No evidence of protected species was found within or immediately adjacent to the proposed development footprint during the survey but there are habitats with suitability for badgers, bats, nesting birds, amphibians and reptiles.

The following section details the potential impacts and appropriate species-specific mitigation, enhancement and management measures to ensure no negative impacts on protected species and ensure the proposals will result in an overall increase in biodiversity at the site.

## 4.2 Protected Species License Sites

There are multiple historic records of Great Crested Newt (*Triturus cristatus*) within 2 km of the proposed development site, the closest record was located approximately 1 km south-east of the proposed development site (Anon, 1992: NBN Atlas; OGL).

There are records of Common Pipistrelle (*Pipistrellus pipistrellus*) within 2 km of the proposed development site, the closest record was located within 500m of the proposed development site (Anon, 1998: NBN Atlas; OGL), Brown Long-eared Bat (*Plecotus auratus*) and Whiskered Bat (*Myotis mystacinus*) were also recorded at a site approximately 1.5 km north-west of the proposed development site (D. Bullock and Anon., 1998 and 1999: NBN Atlas; OGL) and records of Noctule (*Nyctalus noctule*) at a site within 500m of the proposed development site (Undisclosed, 1998: NBN Atlas; OGL).

## 4.3 Badger

### *4.3.1 Impacts*

No evidence of Badger has been recorded on or adjacent to site, but the hedgerow bases are suitable for setts to be dug and for foraging. Significant impacts on Badger are not predicted but precautionary mitigation measures will be adhered to.

### *4.3.2 Mitigation*

In order to ensure foraging Badgers do not become trapped within any excavations these should either not be left uncovered overnight or ways of escape for Badgers provided (wooden planks or graded earth banks).

## 4.4 Bats

### *4.4.1 Impacts*

The ephemeral and tall ruderal vegetation is unlikely to be important for foraging bats however bats are likely to forage over the hedgerows around the site boundaries. Appropriate mitigation measures are therefore required to ensure impacts on foraging bats are minimised and the site is enhanced for roosting bats.

### *4.4.2 Mitigation and Enhancement*

During the construction phase, any lighting will be directed away from retained boundary hedgerows and trees to ensure that suitable roosting, foraging and commuting habitats remain unlit.

No additional lighting will be installed inside/around the building and construction works will be confined to hours of daylight only with no works being carried out between dusk and dawn.

Suitable bat foraging and commuting habitat will be unaffected by the proposed works. To provide additional opportunities for roosting bats on and around the site a Woodstone Beaumaris bat box will be erected on the southern gable end of the new agricultural building (*Figure 5*). The bat box is to be located on the outside of the building, facing south. No lighting is to be directed on the newly installed bat box.

Planting up of the retained hedgerow along the eastern boundary of the site will ultimately increase suitable commuting and foraging habitat for bats on the site.

*Figure 5. Location of a Woodstone (or equivalent) bat box on the newly constructed agricultural unit (blue star = one Woodstone Beaumaris Bat Box on gable end)*



## 4.5 Nesting Birds

### *4.5.1 Impacts*

The tall ruderal vegetation affected by the proposals is suitable habitat for nesting birds. Appropriate mitigation measures and safe working methods are required to ensure nesting birds aren't affected during works.

### *4.5.2 Mitigation and Enhancement*

Works affecting suitable nesting habitat on site (*i.e.* tall ruderal) will be undertaken outside the breeding bird season (March to August inclusive). If this is not possible then a pre-construction bird survey will need to be completed by a suitably qualified ecologist and depending on the presence and location of nesting birds, breeding effort may have to be allowed to finish before works commence.

Artificial nesting features are to be erected on newly constructed building (*Figure 6*). These boxes will be retained and maintained for the lifetime of the development. These features will include:

- One open-fronted bird box (e.g. Barcelona Woodstone Open Nest Box, or equivalent) to be erected on the site.
- One hole-fronted bird box to be erected onto the newly constructed building as and when they are built during the construction phase of the development.
- Three swallow nest cups to be erected onto the dividing concrete wall between the existing agricultural building and the newly constructed building.

Planting up of the retained boundary hedgerows will ultimately increase suitable nesting bird habitat on and around site.

*4.5.2.1 Figure 6. Locations of artificial nesting features to be erected within proposed development site (yellow star = three swallow cups on concrete dividing wall; green star = one hole-fronted and one open-fronted bird box).*




## 4.6 Reptiles and Amphibians

### *4.6.1 Impacts*

There are no ponds within the proposed development area, with the closest pond to site located over 600m to the west. There are no ponds within 500m of the proposed development site works will only affect small areas of ephemeral and ruderal, existing hardstanding and buildings (caravans/sheds). The presence of Great Crested Newts is considered very unlikely; therefore, no species-specific enhancement is considered necessary, however precautionary safe working measures will be put in place for reptile species (see section below) which will also ensure that there will be no negative impact on Great Crested Newt, in the highly unlikely event that they are present on site.

### *4.6.2 Mitigation and Enhancement*

Although the presence of reptiles in the proposed works areas is unlikely, there is suitable habitat for reptiles within the wider vicinity with the mosaic of farmland, yards and verges offering suitable reptile habitat locally. As reptiles may be present in the wider area precautionary safe working measures must be followed to minimise risk to these species. The precautionary Reasonable Avoidance Measures (RAMs) will be followed pre and during construction and will include the following measures:

- Vegetation to be cut to just above ground level and then maintained short pre and during excavation works to deter reptiles from occurring.
- The vegetation can be cut down to just above ground level between September and November to avoid the nesting bird season with groundworks associated with the vegetation clearance

completed when reptiles and/or amphibians are likely to be active (March to October and when overnight temperatures are over 5°C);

- Any excavations will be completed during daylight and backfilled (and suitably compacted) before nightfall or if this is not possible a ramp (or similar structure) will be provided to allow animals an opportunity to escape. Checks of any excavations for animals will also be undertaken prior to backfilling.
- During construction, any storage of piles of materials and excavated earth on the site must be kept to a minimum and stored on hardstanding away from the boundaries and raised (e.g. on pallets) to deter reptiles from using them for temporary cover. Any excavated earth should be compacted on the day it is excavated and stored on site for a maximum of three nights.
- The spoil heaps located within the proposed development site are to be 'gently' removed in sections with small machinery for example a mini digger, to allow reptiles and amphibians to disperse safely.

**If a Great Crested Newt or reptile is found during any stage of the above works all works must cease and an Ecologist called to provide advice and/or attend site. In the event of a Great Crested Newt being found Natural Resources Wales (NRW) will need to be contacted to discuss an acceptable course of action. No attempt must be made by site personnel to move a Great Crested Newt.**

## 4.7 Other Species

### *4.7.1 Hedgehog*

There is the potential for Hedgehog (*Erinaceus europaeus*) to be present on site and across the wider ownership boundary; particularly within the eastern boundary hedgerow as this habitat provides good areas for feeding and breeding Hedgehog. Hedgehogs are particularly vulnerable to disturbance between May and October when litters of hoglets are born and during the winter months when they may be hibernating. However, the loss of small sections of hardstanding, spoil piles and ruderal areas on site are unlikely to have an impact on this species.

Some habitats suitable for foraging Hedgehog may be directly affected by the proposals, so the following precautionary mitigation measures and safe working methods will be adhered to during construction:

- Any excavations will be backfilled (and suitably compacted) before nightfall or if this is not possible a ramp (or similar structure) will be provided to allow animals an opportunity to escape
- All cleared vegetation, spoil heaps and soil or construction materials will be stored at least 5m away from the boundary treelines and will be kept raised off the ground, e.g. on pallets; to prevent Hedgehogs from sheltering underneath.
- Any chemicals that are required for the construction works and project will be stored in tightly sealed containers, away from suitable Hedgehog habitats and in a manner that prevent small mammals from opening or becoming trapped within chemical containers/vessels.

General proposed habitat enhancement and creation will benefit Hedgehog and created wood piles will also be suitable for Hedgehog. No barriers to Hedgehog movement (such as fencing) will be installed on site as part of the proposals, if new fencing is required then the project Ecologist will be consulted as to how to incorporate Hedgehog and small mammal access holes into any new fencing.

### *4.7.2 Invertebrates*

The eastern boundary hedgerow, spoil piles and ruderal areas on site are of some suitability for invertebrates and likely offer some food sources for pollinators in the spring and summer months.

The loss of the spoil piles and minor loss of ruderal and ephemeral habitats on site as a result of the proposals will result in the loss of habitats for invertebrates and as such the planting and habitat creation measures detailed in this report will provide replacement habitat for invertebrates on site. In order to further enhance the site for invertebrates' post-development works, log and/or stone piles will be constructed within the base of the eastern boundary hedgerow to provide additional suitable habitat structures for many invertebrate species found locally.

# *5 LIGHTING*

## 5.1 Construction lighting

No lighting of over 2000 lumens (150 W) to be used on site in accordance with the Bat Conservation Trust Bats and Lighting in the UK guidance *(Guidance Note 8 Bats and Artificial Lighting; 2023).*

## 5.2 Post-development lighting

No lighting is proposed for the external of the building, however should any lighting be required it will need to be in accordance with the Bat Conservation Trust's Bats and artificial lighting in the UK; Guidance Note 8 Bats and Artificial Lighting (2023) guidance note. The lighting plan for the development must minimise light spill to existing hedgerows on site and the fields to the south and east of the site. Between the hours of dusk and dawn lights are to be on motion activated sensors.

The following should be considered when choosing lighting for the development site:

- All external lighting will be positioned no higher than the top of the ground-floor level / well away from bat access features and comprise of a 20W LED hooded downlighter operated by an internal switch, and activated externally by motion detection, with automatic cut-off.
- All exterior lighting should lack UV elements. Metal halide, fluorescent sources should not be used.
- LED lighting should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white spectrum (ideally <2700Kelvin) should be adopted to reduce blue light component.
- Lighting should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats.

## *APPENDIX 1 – SPECIES LISTS*

### 5.3 Ephemeral and Tall Ruderal

The Ephemeral and tall ruderal vegetation comprises of species including Broad-leaved Dock (*Rumex obtusifolius*), Creeping Thistle (*Cirsium arvense*), Mugwort (*Artemisia vulgaris*), Common Hogweed (*Heracleum sphondylium*), Creeping Buttercup (*Ranunculus repens*), Ribwort Plantain (*Plantago lanceolata*), Yorkshire Fog (*Holcus lanatus*), Meadow Buttercup (*Ranunculus acris*), Burdock (*Arctium lappa*), Common Nettle (*Urtica dioica*), Common Bent (*Agrostis capillaris*), Rough Meadow Grass (*Poa trivialis*), Bracken (*Pteridium aquilinum*), Common Ragwort (*Jacobaea vulgaris*), Perennial Ryegrass (*Lolium perenne*), Common Couch Grass (*Elymus repens*), Broad-leaved Plantain (*Plantago major*), Greater Willowherb (*Epilobium hirsutum*), Spear Thistle (*Cirsium vulgare*), Musk Thistle (*Carduus nutans*), Hedge Bindweed (*Calystegia sepium*), Cocks Foot (*Dactylus glomerata*), White Clover (*Trifolium repens*), Dandelion (*Taraxacum officinale*), Wild Oat (*Avena fatua*), Prickly Sow Thistle (*Sonchus asper*), Nipplewort (*Lapsana communis*), Italian Ryegrass (*Lolium multiflorum*), Pineapple Weed (*Lepidotheca suaveolens*), Scentless Mayweed (*Tripleurospermum inodorum*), Garlic Mustard (*Alliaria petiolata*), Common Mouse-ear (*Cerastium fontanum*), Soft Brome (*Bromus hordeaceus*), Shepherds Purse (*Capsella bursa-pastoris*), Common Poppy (*Papaver rhoeas*), Scarlet Pimpernel (*Lysimachia arvensis*) and Yarrow (*Achillea millefolium*).

### 5.4 Hedgerow

The existing hedgerow comprises of species including Hawthorn, Blackthorn (*Prunus spinosa*), Hazel, Wych Elm (*Ulmus glabra*), Holly (*Ilex aquifolium*), Creeping Thistle (*Cirsium arvense*), Spear Thistle (*Cirsium vulgare*), Burdock (*Arctium lappa*), Common Nettle (*Urtica dioica*), Mugwort (*Artemisia vulgaris*) and Hedge Woundwort (*Stachys sylvatica*).

## *APPENDIX 2 – LEGAL PROTECTION*

This section briefly describes the legal protection afforded to the protected species referred to in this report. It is for information only and is not intended to be comprehensive or to replace specialised legal advice. It is not intended to replace the text of the legislation but summarises the salient points.

### 5.5 Badger

Badger is protected in Britain under the *Protection of Badgers Act 1992* and *Schedule 6* of the *Wildlife and Countryside Act 1981* (as amended).

The legislation affords protection to Badgers and Badger setts, and makes it a criminal offence to:

- wilfully 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.

### 5.6 Bats

All species of British bat are protected by *The Wildlife and Countryside Act 1981* (as amended) extended by the *Countryside and Rights of Way Act 2000*. This legislation makes it an offence to:

- intentionally kill, injure, or take a bat;
- possess or control a bat;
- intentionally or recklessly damage, destroy or obstruct access to a bat roost; and
- intentionally or recklessly disturb a bat whilst is occupies a bat roost.

Bats are listed on *Schedule 2* of the *Conservation of Habitats and Species Regulations 2017* under *Regulation 42*. This legislation makes it an offence to:

- deliberately capture, injure, or kill a bat;
- deliberately disturb bats in such a way as to be likely to (a) impair their ability to: (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or b), to significantly affect the local distribution or abundance of the species to which they belong; and
- damage or destroy a breeding site or resting place of a bat; and
- possess, control, transport, sell, exchange a bat, or offer a bat for sale or exchange.

All bat roosting sites receive legal protection even when bats are not present.

Where it is necessary to carry out an action that could result in an offence under the *Conservation of Habitats and Species Regulations 2010 (SI 2010/490)* it is possible to apply for a Protected Species

Mitigation Licence from Natural England (NE). Three tests must be satisfied before this licence (to permit otherwise prohibited acts) can be issued:

- Regulation 53(2)(e) states that licences may be granted to "preserve public health or public safety or 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(9)(a) states that a licence may not be granted unless "there is no satisfactory alternative".
- Regulation 53(9) (b) states that a licence cannot be issued unless the action proposed "will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range".

## 5.7 Nesting Birds

All species of bird are protected under *Section 1* of the *Wildlife and Countryside Act 1981* (as amended). The protection was extended by the CRoW Act.

The legislation makes it an offence to intentionally:

- kill, injure, or take any wild bird;
- take, damage, or destroy the nest of any wild bird while that nest is in use or being built; or
- take or destroy an egg of any wild bird.

Certain species of bird are listed on *Schedule 1* of the *Wildlife and Countryside Act 1981* (as amended) and receive protection under *Sections 1(4)* and *1(5)* of the Act. The protection was extended by the CRoW Act. The legislation confers special penalties where the above-mentioned offences are committed for any such bird and also make it an offence to intentionally or recklessly:

- disturb any such bird, whilst building its nest or it is in or near a nest containing dependant young; or
- disturb the dependant young of such a bird.

## 5.8 Great Crested Newt

Great Crested Newt is listed on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receive full protection under *Section 9*. This species is also listed on *Schedule 2* of the *Conservation of Habitats and Species Regulations 2017 (as amended)*. Protection was extended by the *Countryside and Rights of Way Act 2000* (the CRoW Act).

Under the above legislation it is an offence to:

- kill, injure or take an individual of such a species;
- possess any part of such species either alive or dead;

- intentionally or recklessly damage, destroy or obstruct access to any place or structure used by such species for shelter, rest, protection or breeding;
- intentionally or recklessly disturb such a species whilst using any place of shelter or protection; or
- sell or attempt to sell any such species.

The Great Crested Newt is included as a Priority Species in the UK Biodiversity Action Plan (UKBAP) and also as a species of principal importance for the conservation of biological diversity in England under *Section 74* of the CRoW Act.

## 5.9 Common Reptile Species

Common Lizard, Grass Snake, Slow-worm, and Adder are listed under *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), in respect of *Section 9(5)* and part of *Section 9(1)*. This protection was extended by the CRoW Act.

Under the above legislation it is an offence to:

- intentionally or deliberately kill or injure any individual of such a species; or
- sell or attempt to sell any part of the species alive or dead.

## *APPENDIX 3 – SPECIES IDENTIFICATION SHEETS*

### General

Species identification sheets for reptiles and amphibians are included as there is the potential for some of these species to occur within construction and/or management areas. These sheets have been produced by the Reptile and Amphibian Groups UK and are freely available on the internet (http://www.arguk.org/advice-and-guidance/view-category).

It is considered that the following species could occur in the vicinity of the development site.

- Common Frog
- Common Toad
- Smooth Newt
- Great Crested Newt
- Grass Snake
- Slow Worm
- Viviparous Lizard

### Guidance

The species identification sheets will be discussed at the tool box talk/site meeting. It is considered that is very unlikely that any of these species will occur within the approved development footprint but if an animal is found during any construction works not supervised by an Ecologist the safe working methods detailed below should be followed.

- Stop work and if possible, identify the animal found using the identification sheets.
- Ensure that the animal is not in immediate danger (clearly mark the area in which the animal has been found, inform other site personnel of the discovery, tell the site manager).
- Phone the Ecologist for advice (contacts are included in this section) and follow their instructions.
- Amphibians are likely to need to be carefully moved by hand to a suitable safe off-site area previously identified during the tool box talk. Reptile handling should be avoided if possible, with animals encouraged to leave the affected area unaided.
- **If it is thought that a Great Crested Newt has been found on site all works must stop and the ecologist contacted. No attempt must be made by site personnel to move a Great Crested Newt.**

# Amphibian Identification

## Common frog

Adults 6-7 cm. Smooth skin, which appears moist.

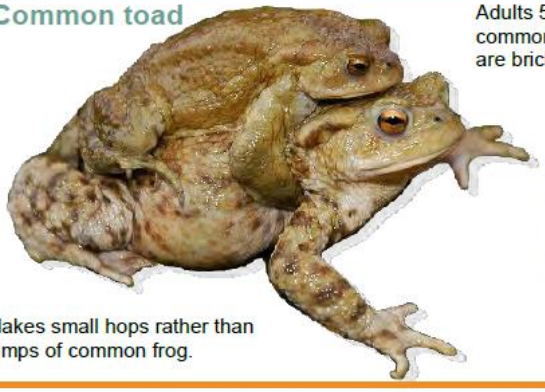
Coloration variable, includes brown, yellow and orange. Some females have red markings on lower body and underneath.

Markings also variable, including varying amounts of black spots and stripes.



Usually has dark 'mask' marking behind

## Common toad



Adults 5-9 cm. Rough skin. Brown with darker markings. Less commonly, some individuals are very dark, almost black, others are brick red.

Makes small hops rather than jumps of common frog.

Toad spawn is laid in gelatinous strings, wrapped around vegetation. Less obvious than common frog spawn.



## Tadpoles

On hatching, common frog and toad tadpoles are black. As they develop, common frog tadpoles become mottled with bronze, whereas toad tadpoles remain uniformly dark until the last stages of development.

Frog



Common frog and toad tadpoles generally complete development in the summer, but development rates are variable. Some tadpoles may not transform until later in the year, or they may even remain as tadpoles over winter, becoming much larger than normal.

Toad



## Metamorphs



Young froglets look like smaller versions of the adults.

Newly emerged toadlets are often very dark in colour.



## Natterjack toad

Similar in size and appearance to common toad, but with a distinctive pale stripe running along the back. This is a rare species, unlikely to be encountered outside specific



Strictly protected species, requiring a licence to handle or disturb.

ARG UK Amphibian and Reptile Groups of the UK
VOLUNTEERS WORKING FOR THE CONSERVATION OF AMPHIBIANS AND REPTILES

amphibian and reptile conservation

## Smooth newt

Grows to about 10 cm. Both sexes have orange or yellow belly stripe, with rounded black spots. Male has undulating crest running from head to tail tip.







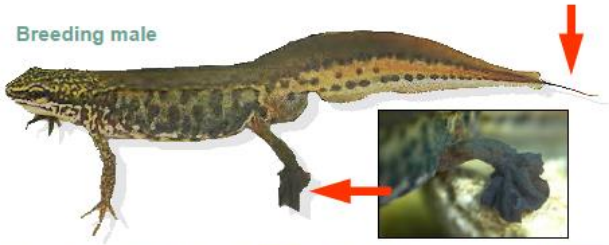



A widespread species which breeds in a variety of water bodies. Often found in garden ponds.

After the 'tadpole' stage, young newts live on land. Most likely to be found from late summer to autumn as they disperse from ponds.

## Palmate newt

Grows to 9 cm. Breeding male has ridge running along back, rather than a crest. Dark, webbed hind feet, and tail ends in filament.









There are two pale coloured nodules on the underside of the hind feet of female palmate newts.






Female looks similar to smooth newt.

Throat of palmate newt has no pigment (looks pink). Throat of smooth newt is off-white and usually spotted.

## Great crested newt

Grows to 16 cm, but usually smaller. Crest in male has break at base of tail. Silvery-white stripe towards rear of tail conspicuous.

Both sexes have rough, granular skins and yellow/ orange bellies with irregular black spots.







Juveniles look like smaller versions of the female and may live on land or in the water.

Strictly protected species, requiring a licence to handle or disturb.

# Reptile Identification



## Viviparous lizard

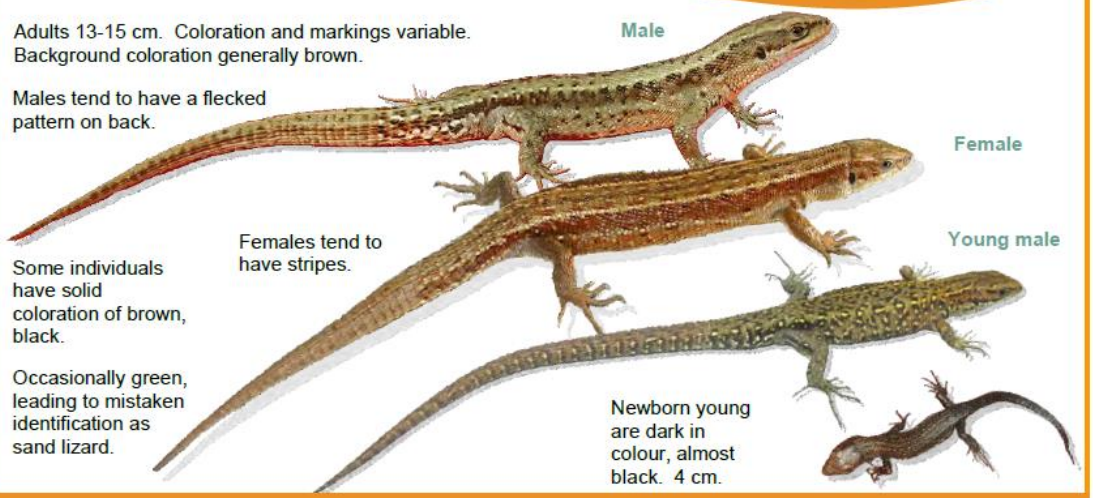
Adults 13-15 cm. Coloration and markings variable. Background coloration generally brown.

Males tend to have a flecked pattern on back.

Some individuals have solid coloration of brown, black.

Occasionally green, leading to mistaken identification as sand lizard.

Females tend to have stripes.




Newborn young are dark in colour, almost black. 4 cm.

## Adder

A stocky snake, adults 40-70 cm.







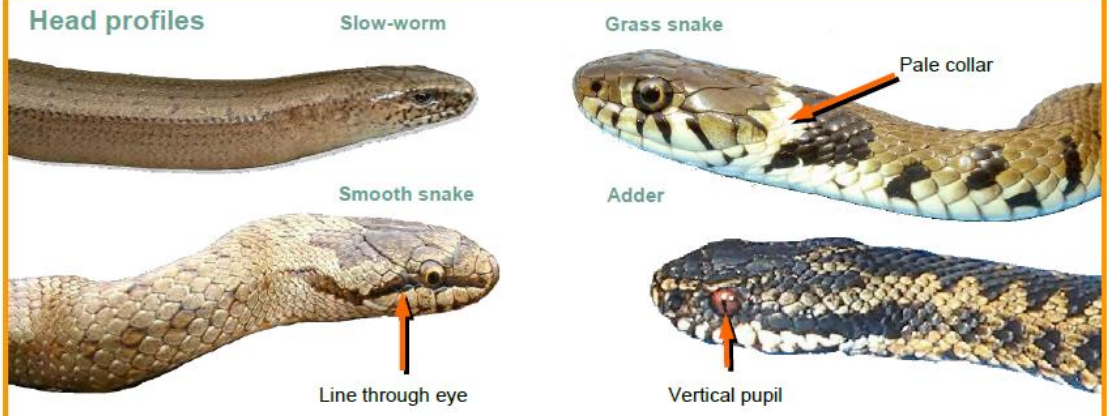
Variable coloration. Males typically grey with a black zigzag stripe, females generally brown with a dark brown zigzag stripe. Black adders are found in some areas.




Wide distribution, but restricted to specific habitats (heathland, down, scrub, woodland edge, road and rail embankments).

New-born 16 cm. Some young are brick-red, others have similar coloration to adults.

## Head profiles




Note that many snake species are kept as pets and so escaped or released non-native snakes are occasionally encountered.

## Slow-worm

Adults 35-40 cm. Generally grey or brown, very rarely black. Small, shiny scales, giving a metallic appearance.

Blue spots on some males.

The most common reptile in the UK, found in a variety of habitats, including gardens. It spends most of its time underground or in vegetation litter. Most likely to be found underneath objects lying on the ground, or in compost heaps.

Young have similar markings to the females, but better defined.





Male

New-born 7-10 cm, with a black spot on the head.

Female

Females have darker coloured flanks and often a black line running along the back.

## Grass snake

Adults 70-100 cm, occasionally some females growing larger.

Body colour ranges from bright green to dark olive, but mostly the latter. Darker specimens can appear black from a distance. Truly black grass snakes are very rare.

Cream, yellow or white collar behind the head, bordered to the rear by black marks.



Most have black bars on the flanks, some also have black spots on the back.





**Eggs** 2.5 cm long, Laid in clutches of 10-40, usually stuck together. Several females may deposit clutches in the same place (usually in decomposing material such as compost or manure heap).

Hatched egg shells. These are very persistent and may remain up to a year after hatching.



Hatchlings 16-20 cm with similar markings to adults. Appear late August to September.

## *APPENDIX 4 - CONTACTS*

In the event of an issue with any protected species on site during any stage of the works please contact the lead Ecologist. If the ecologist is not available, please work your way down the following list:

1. Jenny Butler (Ecologist in charge) – 07391 820315
2. Clare Knight – 07825908531
3. Stephen Wilson – 07766388847

## *APPENDIX 5 – DECLARATION AND SIGN-OFF SHEET*

I have read and understood the contents of this method statement.

| Name | Company | Date | Signature |
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