

Wood Walk, Hoyland, Barnsley Construction Environmental Management Plan (CEMP): Biodiversity

Yelcon Construction

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Ecus Ltd

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Report Title: Wood Walk, Hoyland, Barnsley – Construction Environmental
Management Plan (CEMP): Biodiversity

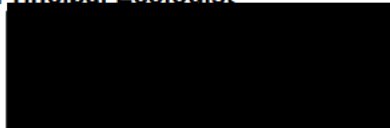
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1. Introduction

1.1.1 Ecus Ltd (Ecus) was commissioned in July 2023 by Yelcon Construction to produce a Construction Environmental Management Plan (CEMP): Biodiversity for a proposed development associated with land north of Wood Walk, Hoyland, Barnsley, centred on Ordnance Survey National Grid Reference (OS NGR): SE 37360 01717, hereafter referred to as 'the Site'.

1.2 Background

1.2.1 The CEMP has been informed by the following reports and documents:

- A Preliminary Ecological Appraisal (PEA) report by Delta Simons (Report Ref: 16-0406.07, dated August 2021).
- A site location plan drawing by Enjoy Design 'Proposed – Site Plan' Ref: 00-001, drawn July 2021.
- Soft landscaping drawings by Above Zero 'Soft Landscape Layout Plan 1-4' Ref: 064.01.02, dated July 2021.

1.2.2 The Site measures approximately 3.7 hectares (ha) and habitats currently present include an arable field, left fallow, which accounts for the majority of the Site, improved grassland margins, broadleaved plantation woodland and dense scrub. Linear features present at the Site include species-poor hedgerow and fences.

1.2.3 The proposed development is illustrated in the 'Proposed – Site Plan' and comprises 83 dwellings with associated infrastructure.

1.2.4 The CEMP has been identified as required to discharge planning condition number 24 which states that:

'The development hereby approved shall be carried out in strict accordance with the mitigations/recommendations set out in section 6 of the Preliminary Ecological Appraisal by Delta Simons dated August 2021 (Ref: 16-0406.07). Prior to the commencement of development, precise details of the required mitigation measures shall be submitted to and approved in writing by the Local Planning Authority. Thereafter the development shall be constructed in accordance with the approved details.'

Reason - In the interest of Biodiversity and in accordance with Local Plan Policy BIO1'.

1.2.5 The CEMP will detail the ecological constraints identified within the above PEA report and specify the mitigation measures highlighted. Potentially damaging impacts of the works are detailed in Section 3.2 of this CEMP report, a detailed Method Statement (MS) is discussed in Section 4 and

Appendix 2. Actions and measures to be undertaken in the event of any protected or notable species be discovered during the construction phase are detailed within the Toolbox Talk in Appendix 1. The use of exclusion fencing and wildlife safety and wellbeing measures are addressed within Section 4 and Appendix 2.

2. Existing Site Condition and Features of Interest

2.1 Overview

- 2.1.1 The Site condition and habitats have been described using Phase 1 Habitat Survey terminology and are displayed in Figure 2 of the PEA report by Delta Simons in 2021.
- 2.1.2 The Site is situated to the north of Wood Walk in Hoyland, Barnsley S74 9SQ. To the north of the Site is the Dearne Valley Parkway (A6195), to the west is an open field and to the southwest are residential properties. Habitats on the Site include broadleaved plantation woodland, dense scrub, improved grassland, tall ruderals, arable, bare ground, hardstanding, bracken; in addition are intact species-poor hedgerow, defunct species-poor hedgerow, fence, scattered scrub and scattered trees.
- 2.1.3 Surrounding the Site to the north and south are small strips of woodland separating the Site from the roads A6195 and B6096. To the west of the Site is a grassland field, and residential properties with gardens to the southwest. In the wider area to the north and east is agricultural land and woodland; to the west is more fields and residential properties and to the south is the main part of the town of Hoyland.

2.2 Designations

- 2.2.1 The desk study present within the PEA report identified no statutory designated sites within 2 km of the Site and no internationally designated sites within 6 km of the Site. A review of the Multi-Agency Geographic Information for the Countryside (MAGIC) maps by Ecus has identified Dearne Valley Wetlands Site of Special Scientific Interest (SSSI) within 2 km of the Site, see Table 1. The confirmation date for this site was in 2022, after the publication of the PEA report.
- 2.2.2 Three non-statutory designated sites, all Local Wildlife Sites (LWS), were identified within 2 km of the Site, see Table 1. The closest relates to Wombwell Wood, located approximately 580 m northeast of the Site.

Table 1. Designated Sites within 2 km

Statutory Site Name	Designation	Distance from Site
Dearne Valley Wetlands	SSSI	950 m northwest
Non-Statutory Site Name	Designation	Distance from Site

Wombwell Wood	LWS	580 m northeast
Barrow Colliery Site	LWS	990 m northwest
Short Wood and Hay Green	LWS	1.44 km west

2.2.3 The Site lies within two SSSI Impact Risk Zones (IRZ). The risks corresponding to residential and rural residential properties respectively state:

‘Residential development of 100 units or more’.

‘Any residential development of 50 or more houses outside existing settlements/urban areas’.

2.2.4 As the Site lies at the northern edge of the town of Hoyland, it is considered that the Site is not rural and is within existing settlements/urban areas. Also as the Site unit proposals are below the threshold of 100, no impacts are anticipated to SSSIs.

2.3 Ecological Summary

2.3.1 The below section provides a summary of the habitats present on the Site (pre-development) and their associated potential to support protected species. The PEA report contains the full details regarding habitats and protected/notable species at the Site.

Habitats

2.3.2 Habitats present at the Site were identified as broadleaved plantation woodland, dense scrub, bracken, tall ruderals, improved grassland, arable (fallow), hardstanding and bare ground. Linear features identified were intact species-poor hedgerow, defunct species-poor hedgerow and fence. Scattered broadleaved trees, in the form of two ash *Fraxinus excelsior* trees, were also present in the south of the Site.

2.3.3 The proposed site layout (*‘Proposed – Site Plan’*, Ref: 00-001, Enjoy Design Ltd), included within the PEA report, shows the retention of the woodland and two ash trees in the Site. The hedgerows will mostly remain intact with some additional planting, with partial removal of one hedgerow to facilitate an access road.

2.3.4 Root Protection Areas (RPAs) are displayed within the soft landscaping drawings by Above Zero *‘Soft Landscape Layout Plan 1-4’* Ref: 064.01.02, dated July 2021.

Species

2.3.5

2.3.6

Bats

- 2.3.7 The PEA report identified one of the ash trees (T1) and a telegraph pole as displaying low suitability for roosting bats. The Potential Roosting Features (PRF) on the tree were recorded as broken limbs and rot holes, with the telegraph pole PRF being recorded as a fissure along its eastern aspect, wide enough for bat access. The trees in the woodland were assessed to display negligible suitability for roosting bats, as was the second tree (T2) at the Site.
- 2.3.8 The Site was assessed to display low suitability for foraging and commuting bats, with the hedgerows, scrub and woodland identified as suitable for bat foraging and commuting activity. It was noted that street-light spillover was identified from the Wood Walk and Dearne Valley Parkway roads, affecting the north, east and southern aspects of the Site.
- 2.3.9 The two trees are due to be retained on the Site. The telegraph pole has not been specified for removal or retention. The PEA recommended that T1 and the telegraph pole were to be climbed and checked by a licenced bat ecologist prior to potential removal to check for evidence of bat activity, or for a dawn return survey undertaken (between April and October inclusive) of the trees prior to morning of works commencing, to ensure roosting bats are not present.
- 2.3.10 A sensitive lighting regime was recommended to prevent light spillage onto boundary and site habitats.

Birds

- 2.3.11 The Site habitats were considered to be suitable for nesting birds, such as the hedgerows, scrub, trees and woodland. The arable fallow is also considered to be suitable for ground nesting birds, as some species, such as skylark *Alauda arvensis*, were recorded during the PEA. As some of the habitats proposed to be impacted by the development support nesting birds, it was recommended that clearance of these habitats is undertaken outside of the peak nesting bird season (September to February inclusive). If this is not possible, then an inspection by an experienced ecologist will be

required to ensure nesting birds will not be impacted by the works.

Great Crested Newts

- 2.3.12 The PEA identified one record of Great Crested Newt (GCN) *Triturus cristatus* approximately 900 m southwest of the Site boundary from 2015. Furthermore, eight records of smooth newt *Lissotriton vulgaris* were identified within 2 km of the Site. The Site habitats within the scrub, woodland and hedgerows were considered suitable dispersal habitats for amphibians and remnants of a dry stone wall within the woodland was considered suitable for hibernating amphibians. The PEA did not identify any waterbodies on or within 500 m of the Site and with the limited records, GCN were not considered to be a constraint to the works and not discussed further.
- 2.3.13 A review by Ecus using colour mapping on MAGIC maps has identified three potential waterbodies at roughly SE 37782 01917 (approximately 280 m northeast), SE 36774 01770 (approximately 430 m west) and SE 37580 01199 (approximately 500 m south). The first two waterbodies are separated from the Site by a major dual-carriageway road, which is considered to be major barrier to dispersal, with the other waterbody separated by gardens and fields, and Wood Walk/Wombwell Road to the south of the Site. However, suitable woodland and grassland habitat is present between these ponds and the Site, notwithstanding the roads.
- 2.3.14 No EPS licences for GCN, Great Crested Newt Class Survey Licence Returns (England) or Great Crested Newt Pond Surveys 2017 – 2019 records were identified using MAGIC within 2 km of the Site.
- 2.3.15 The Site is located in an area covered by the Natural England District Level Licencing (DLL) Scheme (DLL). Should Yelcon Construction wish to eliminate all risk in relation to encountering GCN during the works, the DLL scheme could be used.

Invertebrates

- 2.3.16 The PEA report did not include invertebrates within its assessment for the Site, however specified planting as an enhancement measure to increase invertebrate diversity at the Site has been recommended to benefit bats and birds. The PEA stated '*Planting should aim to enhance retained or adjacent vegetation and be of native species, or those of known value to wildlife, sourced from local nurseries to enhance foraging opportunities for local birds and bats, by increasing the invertebrate diversity on-Site*'.

Reptiles

- 2.3.17 The Site was deemed suitable for supporting reptiles, due to presence of hedgerows, scrub, woodland and potential hibernation locations such as compost heaps, logs and a stone wall.

Records of reptiles are present within 2 km of the Site, with the closest pertaining to a grass snake *Natrix Helvetica* approximately 280 m north of the Site. Due to the presence of roads around the Site, in particular the Dearne Valley Parkway, these were considered a major barrier to reptile dispersal onto the Site and discounted further within the PEA report.

Riparian Mammals and White-clawed Crayfish

2.3.18 The PEA report did not assess the Site's suitability for supporting otter *Lutra lutra*, water vole *Arvicola amphibius* and white-clawed crayfish *Austropotamobius pallipes*. No waterbodies were identified on the Site or within 30m following a review on MAGIC by Ecus. Therefore, it is considered highly unlikely that water vole, otter or white-clawed crayfish are an ecological receptor to the works at the Site and are not discussed further.

Other Key/Notable Species

2.3.19 The Site habitats were considered suitable for supporting European hedgehog *Erinaceus europaeus*. Prior to removal of hedgerow, scrub or trees, it was recommended that a check should first be carried out and any identified hedgehogs will be carefully removed by hand into suitable habitat within the Site but outside the working area (such as the woodland to the east). Linear habitats (i.e. hedgerows) will be retained where possible to allow free movement of hedgehogs. Fencing will include gaps to allow hedgehogs access and egress throughout the Site maintaining connectivity to suitable habitats.

Invasive Species

2.3.20 The PEA report identified no non-native invasive weed [(plant)] species (NNIPS) within the Site during the survey. It is assumed that NNIPS are not present at the Site.

3. Proposals and Potential Impacts

3.1 Proposals

- 3.1.1 The Site measures approximately 3.7 hectares (ha) and habitats currently present at the Site include an arable field which comprises the majority of the Site and left fallow, improved grassland margins, broadleaved plantation woodland and dense scrub. Linear features present at the Site include species-poor hedgerow and fences.
- 3.1.2 The proposed development comprises up to 83 houses and associated infrastructure. The Site plans are illustrated in the Enjoy Design '*Proposed – Site Plan*' Ref: 00-001. Soft landscaping proposals are also illustrated in the Above Zero '*Soft Landscape Layout Plan 1-4*' Ref: 064.01.02.

3.2 Potential Impacts

- 3.2.1 Pre-construction and construction operations with potential to damage the Site and other potential sources of ecological impact arising from the development are considered to include:
- Ground compaction, disturbance and damage to trees/scrub and roots as a result of bringing machinery and materials on to the Site and storage of materials;
 - The Site is located within two SSSI IRZs, one of which lists the development of 100 or more units within residential development to be a risk. As the proposed works pertain to 83 dwellings, no impacts are anticipated or consultation with Natural England is considered necessary. Should the works relating to the development change, a consultation with the MAGIC Maps IRZ must be undertaken to determine if consultation with Natural England is required; or if the proposed works result in 100 or more units being constructed;
 - Adverse impacts to common amphibians during their terrestrial phase and mammals, if present, as a result of ground and vegetation clearance;
 - Adverse impacts to individual birds/active nests as a result of clearance of vegetation if this is undertaken during the peak bird nesting season (typically recognised as March – August inclusive);
 - Disturbance to roosting bats within the low suitability tree and telegraph pole;
 - Adverse impacts to foraging and commuting bats as a result of light spillage onto suitable habitat and general increased lighting;
 - Disturbance to badgers and hedgehogs and due to increased lighting during the operational phase and post-development, in addition to creations of excavations on Site which may trap

and/or injure mammals.

4. Construction Management and Implementation

4.1 Construction Management

- 4.1.1 During construction and in accordance with BPM, the following working methods and considerations specific to habitats and species/species groups will be undertaken by the contractor. The methods proposed are based on legal requirements in relation to wildlife legislation, BPM and the requirements for the Site development.

4.2 Habitat Protection

General Measures

- 4.2.1 Construction practices will follow BPM in terms of dust and noise control by ensuring unsealed surfaces are kept damp during dry weather conditions and ensuring that machines are not idling when not in use. All machine refuelling will be carried out in designated areas on Site where spill mats have been installed to prevent any pollution run-off on Site and within adjacent habitats.
- 4.2.2 Temporary fencing (see Figure 1) will be installed ahead of construction commencing to ensure operations do not extend beyond the working area or into the scattered trees habitat that are due to be retained at the Site boundary and will also prevent work from directly impacting land adjacent to the Site.

Root Protection Areas (RPAs) and Biodiversity Protection Zones (BPZ)

- 4.2.3 Existing trees that are identified as at risk from impacts due to their location will be protected from construction activities by RPAs, implemented in accordance with British Standard 5837 (2012): Trees in Relation to Design, Demolition and Construction. This will ensure adequate protection is given to retained trees and their roots to prevent direct damage or soil compaction which could lead to root damage and subsequent failure of the tree.
- 4.2.4 BS5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations.
- 4.2.5 In the circumstance that works require the movement or removal of the temporary protective fencing from around a tree/trees, advice will first be sought from a suitably qualified arboriculturist.
- 4.2.6 All retained trees will be included within Biodiversity Protection Zones (BPZs) during construction. BPZs will be fenced (Figure 1) around the retained trees and woodland to ensure no site personnel or machinery access the sensitive areas. Access routes and movement of machinery will be carefully planned so as to avoid the BPZs. This will maintain the retained trees for protected species including bats and birds.

4.3 Species Protection

- 4.3.1 To protect any species associated with the Site during the pre-construction and construction phases of the works, BPM will be adhered to during the vegetation clearance works and construction works. The current recommended BPM are presented within Appendix 2 and discussed in detail below.
- 4.3.2 The BPM will help to safeguard badgers, bats, birds, and hedgehogs in the event that they are present on the Site at the time of works.

General Measures

Toolbox Talk

- 4.3.3 An Ecological Clerk of Works (ECoW) will be appointed prior to works at the Site. The appointed ECoW will provide a Toolbox Talk (TbT) to all site personnel working on the Site prior to the start of works where ECoW attendance is considered to be appropriate, as described in 4.3.5. the TbT will be used to outline the key habitats/protected species that are present or potentially will use the Site, how to identify them, legislation associated with them, BPM and/or mitigation that will be in place at the Site throughout. All measures set out in the TbT are to be adhered to during the construction phase. The TbT will also include biosecurity measures. Should any ecological receptors or constraints be identified during the construction phase which has not been previously identified, the TbT will be updated and site personnel be informed of any changes.
- 4.3.4 The TbT will also form part of the site induction process for site personnel involved activities where ECoW presence is required, or where there is a residual risk but where ECoW attendance is not considered to be essential. For new staff that begin work on the Site after the initial TbT has been given by the ecologist, the TbT as part of the site induction process will be given by the site manager once an ecologist has briefed the site manager. A copy of the TbT documents and identification sheets will be kept on the Site at all times in the site office and will be signed by site personnel to demonstrate that they have been briefed on the ecological features associated with the Site prior to working on the Site. The TbT documents are provided in Appendix 1.

Ecological Clerk of Works

- 4.3.5 The appointed ECoW will be present to complete pre-works site checks and supervise as follows:
- Where vegetation removal is required within the peak nesting bird season (March – August inclusive), nesting bird checks are to be undertaken;
 - Where suitable quality habitat is to be removed (e.g. arable land and scrub), checks for wildlife

will be undertaken and relocate any fauna to BPZs if necessary. These checks will be undertaken by the ECoW by hand searches;

- To check relevant fencing has been deployed to create RPAs and BPZs;
- To deliver the relevant TbT as required;
- To directly supervise works to the telegraph pole should removal be required;
- To attend the Site in an emergency capacity, in the unlikely event protected species are unexpectedly encountered when the ECoW is not in attendance; and
- To ensure all materials (construction materials) on the Site are being stored in a suitable location away from suitable refugia habitat.

Timing of Works

4.3.6 Currently, potential roosting bats and nesting birds may present constraints to the works. It is therefore recommended that, where possible, any vegetation clearance work is undertaken outside of the peak nesting bird season (September to February inclusive), and hibernation season for small mammals, i.e. hedgehogs (October/November to April/May); therefore September being considered to be the optimal period for works to vegetation clearance works to commence. Further details are provided below.

Good Site Housekeeping

- 4.3.7 If earth spoil arises from the works this will be removed from the Site as quickly as possible or if stored on the Site, placed in a skip or other sealed container immediately. Good general housekeeping of the Site will be employed to ensure there is no build-up of debris.
- 4.3.8 All materials (construction materials) on the Site to be stored in a suitable location away from suitable refugia habitat (i.e. tall grassland, woodland, scrub, brash/logs/rubble) and ideally raised off the ground) (e.g. on pallets) or on hard standing/bare ground.

Bats

- 4.3.9 Night working (hours between and including dusk and dawn) will be avoided to reduce disturbance to foraging /commuting bats.
- 4.3.10 The two ash trees present at the Site are due to be retained. Due to the original bat roost assessment being undertaken in 2021, an update bat roost assessment is advised prior to works commencing to determine the current suitability of these trees and the telegraph for the roosting bats. This will determine any further survey and/or mitigation requirements in respect of the trees.

4.3.11 The PEA report recommended that should either of these require removal, then these should be climbed by a suitably licenced ecologist or a dawn re-entry survey undertaken on the day prior to works commencing. The PEA report also details lighting specifications, functional and direction that should be implemented in line with current guidance.

4.3.12 In the unlikely event a bat is identified on the Site during the works, a suitable experienced ecologist should be immediately contacted for advice. Note that a small number of bats in the UK have been found to carry rabies viruses called European Bat Lyssaviruses (EBLVs). EBLVs are transmitted through a bite or a scratch or from a bat's saliva coming into contact with your mucous membranes (your eyes, mouth or nose).

Birds

4.3.13 Where vegetation clearance works are necessary within the bird nesting season i.e. within March to August inclusive, nesting bird checks will be required to be conducted by an ecologist no more than 24 hours in advance of vegetation removal.

4.3.14 If an active bird nest is identified on Site during the works, any works in progress must cease (where safe and practical to do so) and the ecologist contacted for advice. The ecologist will inspect the nesting area and determine a suitable buffer zone in which no works will encroach for the duration that the nest is active.

Hedgehogs

4.3.15 Any suitable shelter and hibernation features for hedgehogs (e.g. tall grasses, dense scrub, highly-stacked wood logs) will be cleared using hand tools, ideally between April and October in milder weather, dry conditions when hedgehogs are not hibernating. One hibernation feature for hedgehogs was identified at the Site during the PEA, pertaining to a compost heap. Should these require removal or disturbance, this will be undertaken between April and October in mild and dry weather conditions, after a check by the ECoW to ensure it is safe to proceed. If hedgehog nesting or hibernation sites are encountered, the area will be buffered to a distance of 10 m with no works being undertaken in that area until the hibernation season has ended. If a hibernating hedgehog is encountered during the works, it must be picked up by gloved hand, placed into a suitably container and taken to the closest hedgehog rescue centre as soon as possible.

Biosecurity Measures

4.3.16 Biosecurity measures will be implemented during the construction stage and post-development to reduce the possibility of spread of invasive species on to the Site and prevent the spread of diseases (e.g. Chytridiomycosis, an infectious disease in amphibians) (ARG UK 2017).

- 4.3.17 The TbT delivered by the ECoW prior to works will include information regarding biosecurity measures for contractors to adhere to during the works.
- 4.3.18 Standard practices such as cleaning and disinfecting equipment and boots, when leaving the Site will apply to reduce the risk of transferring diseases (ARG UK 2017).
- 4.3.19 Larger equipment i.e. small plant and vehicles will be washed before arriving at the Site if they have been used at other sites where the presence of invasive species or diseases is known. Larger equipment should also be washed before they leave the Site.
- 4.3.20 On-going monitoring by an ecologist at the Site during the construction stage and post development will be implemented to ensure that the presence of any invasive and/or diseases is identified. Should non-native invasive plant species or diseases be identified at any point then these would need be managed through a management plan to be implemented by appointing a suitably experienced contractor/specialist.

Contact Details

- 4.3.21 The overall responsibility of the Site during the construction phase lies with the principal contractor. The person in charge of day-to-day activities will be appointed Site Manager.
- 4.3.22 Ecus Ltd has prepared this document and can be the main point of contact for ecological advice and the provision of ECoW, as required.
- 4.3.23 The client will appoint a project ecologist, who is the main point of call in the event that protected or notable species (i.e. bats, badgers, birds or hedgehogs) are encountered during the works.

5. References

Above Zero (2021). '*Soft Landscape Layout Plan 1-4*' Ref: 064.01.02.

ARG UK. (2017). 'ARG UK Advice Note 4: Amphibian Disease Precautions: A Guide for UK Fieldworkers.'
Amphibian and Reptile Groups of the United Kingdom.

Chartered Institute of Ecology and Environmental Management (CIEEM). (2018). 'Guidelines for
Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater Coastal and Marine'. CIEEM,
Winchester.

Delta Simons (2021). '*Preliminary Ecological Appraisal, Wood Walk, Hoyland, Barnsley*'.

Ecus Ltd (2023). '*Wood Walk Hoyland – BS 5837:2012 Arboricultural Report, Impact Assessment and
Method Statement*'.

Enjoy Design (2021). '*Proposed – Site Plan*' Ref: 00-001.

Figure 1: Biodiversity Protection Zones



Legend

- Boundary Fencing (including hedgerows)
- Woodland Fencing
- Tree Fencing
- Grassland and Future Public Open Space Fencing

NB. All Biodiversity Protection Zones and Fencing Locations are indicative.

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Wood Walk, Hoyland, Barnsley

Figure 1. Biodiversity Protection Zones
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CDM

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Figure 1. Biodiversity Protection Zones
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Appendix 1: Toolbox Talk

Legislation

Amphibians

- GCN are a European protected species;
- It is an offence to ***capture, disturb, injure or kill a GCN or to damage or destroy their breeding sites and resting places.***
- Smooth newt, common frog and common toad are included in Section 9(5) of the WCA 1981 (as amended) which prohibits sale, barter, exchange, transporting for sale and advertising to sell or to buy these species.
- It is advised that best practice are undertaken to avoid impacts and harm to common amphibians.

Badgers

- Badgers and their setts are protected under the Protection of Badgers Act 1992. It is an offence under the act to kill, injure or take a badger. It is also an offence to destroy, damage or obstruct a currently active badger sett, or to disturb animals within the sett.

Bats

- All species of bat occurring within the UK are included in Schedule 2 of the Conservation of Habitats and Species Regulations 2017 and are protected from deliberate capture, injury or killing, from deliberate disturbance and from deliberate damage or destruction of a breeding site or resting place (roost).
- All UK bats are also included on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). However, their protection is limited to certain offences. Under the 1981 Act (as amended) it is an offence to intentionally or recklessly disturb bats while they are occupying a structure or place used for shelter or protection, or to obstruct access to any such place.
- Barbastelle *Barbastella barbastellus*, Bechstein's *Myotis bechsteinii*, brown long-eared bat *Plecotus auritus*, greater horseshoe *Rhinolophus ferrumequinum*, lesser horseshoe *Rhinolophus hipposideros*, noctule *Nyctalus noctula* and soprano pipistrelle *Pipistrellus pygmaeus* bats are included as priority species under Section 41 of the NERC Act 2006 (as amended).

Birds

- All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended) against destruction of the nest during the bird nesting season, which falls between March and August, inclusive. It is an offence under the Act to kill, injure or take any wild bird, with certain exceptions.
- Other birds are also afforded additional protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and Part 3 of the Countryside and Rights of Way Act 2000 (CRoW Act). It is an offence to intentionally or recklessly disturb a Schedule 1 species while it is building a nest, is on or near a nest containing eggs or young, or to intentionally or recklessly disturb dependent young of such a species.

Where to find them?

Amphibians

- Amphibians spend much of their time on land and are generally found in close proximity to ponds (and ditches);
- Amphibians are present within and around ponds/ditches March to June for breeding;
- Amphibians may shelter/hibernate for long periods under rocks, dead logs, debris, and may venture out in milder conditions to forage. The key hibernation period is November-February. Amphibians begin to come out of hibernation and move to breeding ponds with consecutive minimum night time temperatures of 5 degrees Celsius or more.

Badgers

- Badgers live underground in setts often on sloping ground, at the base of hedgerows or woodland edge. Sett entrances are identified by a D-shaped hole usually accompanied by a large spoil heap.
- Badgers are rarely seen but their presence at a site can be determined by looking for the following field signs: setts, spoil heaps, footprints, trails through vegetation, latrines, hairs and scratch marks on trees.
- Badgers are active at dusk and dawn and during the night.
- Badgers are generally active from April- November. They do not hibernate but are commonly less active between November- March, i.e. they become more reliant on/are more likely to stay within the sett for prolonged periods during this time.

Bats

- UK bats are very small animals and the bodies of the smallest bats are able to fit inside a match box. Several species of UK bat are able to conceal themselves in gaps and crevices little wider than 10mm.
- Bat droppings appear similar in size and shape to mouse droppings but if rolled between your thumb and forefinger will crumble to dust, unlike mouse droppings.

What do they look like?

Amphibians

Male Great Crested Newt



Female Great Crested Newt



Smooth (Common) Newt



Palmate Newt



Common Toad



Common Frog



Badgers

Badger sett entrance



Badger footprint



Bats



This image shows a pipistrelle bat approximately 5 cm in length

What you need to know

A risk of encountering badgers, bats, nesting birds, and hedgehog has been identified at the Site. Suitable habitat includes hedgerow, scrub and woodland. It should be noted that any wildlife within the Site will likely be well concealed.

To safeguard the above protected species in the event that they are present at the time of works, the following points will be followed:

- The appointed ECoW and will have briefed all key site personnel via a Toolbox Talk prior to the start of vegetation clearance and construction works. The Toolbox Talk will include relevant detail on ecology/identification, legislation and best working practices;

- All Site contractors will have been shown a copy of this guide which will be made available for reference on the Site at all times;
- All Site personnel to keep a high level of vigilance for protected species during works;
- Always check where you are walking and maintain good housekeeping across the Site, including the storage of all materials on hard standing/bare ground well away from vegetation or ideally on pallets raised from the ground;
- Given the suitability of habitats within the Site for badgers and the highly mobile nature of the species and its propensity to regularly establish new setts; an updated badger walkover survey is advised no less than three months ahead of development. Food/litter will not be left on Site;
- Deep excavations (i.e. over 1 m deep) must be covered overnight during construction works. Any shallow excavations will have a scaffold board or equivalent placed in them overnight to allow any riparian mammals, badgers, hedgehog and other species to exit, should they fall in. Trenches and excavations will also be inspected each morning to ensure that no animals have become trapped overnight;
- Any vegetation clearance works required are to occur outside the peak nesting bird season (March – August inclusive). Outside this period, an ECoW will supervise the clearance to safeguard nesting birds. ECoW supervision of vegetation clearance works will also allow the ecologist to checks of dense vegetation (e.g. scrub/tall grass) for signs of badger and hedgehogs;
- No artificial lighting during the construction will be placed near to any potential bat roost features (retained trees with suitable features) or focus on existing foraging/commuting habitat to be retained (including hedgerows and scattered trees); and,
- No nighttime security lighting would be used. However, if short term lighting is needed during construction, when daytimes are short, unnecessary light spill would be controlled through a combination of directional lighting, low lighting columns (reduced wattage lamps and louvres), hooded/shielded luminaires and/or strategic screening planting. All luminaires will lack Ultraviolet (UV) elements and metal halide, fluorescent sources will not be used. LED luminaires will be used where possible with a warm white spectrum adopted (<2700 Kelvin (oK)).

Other Species Consideration & Habitat Safeguards:

- Vegetation clearance will avoid the key nesting bird season (March to August inclusive). If clearance must occur within the nesting season an ecologist will complete a check for nesting birds before clearance no more than 24 hours prior to clearance, to check for the presence of active bird nests. An active nest would require an exclusion zone to be established and adhered to until chicks had fledged and/or the nest is no longer in use (to be monitored and confirmed by the ECoW);

- Avoid disturbing key features where hedgehog may be hibernating such as dense piles of leaves/ brash piles/ tree hollows during November to March. If hedgehog nesting/hibernation sites are encountered the area will be buffered with a 10 m no works zone and works in the areas will be postponed to after the hibernation season. If hedgehog is encountered between November and March or juveniles are encountered the ecologist will be contact for advice immediately. Basic measures during vegetation clearance such as keeping set access routes will help to reduce impacts on invertebrates. Avoid tree roots and stand-off from mature trees as much as possible. Excessive trampling and compaction of soil will also be avoided;
- Contained designated areas will be used for the washing of vehicles. Designated areas will also be used for refuelling (ideally on an impermeable surface). Storage areas for chemicals, fuels, materials / equipment as well as the Site compound will be located well away from the ditch banks. Bunded tanks are to be used for the storage of any fuel, oil or other potential pollutants;
- Stockpiling of materials on the Site will be avoided and waste materials or spoil from excavation will be removed from the sites and disposed of at the earliest opportunity;
- Biosecurity measures will be implemented during construction to reduce the possibility of spread of invasive species and diseases (e.g. common horsetail (invasive tendencies), Chytridiomycosis an infectious disease in amphibians);
- Use a brush to scrub off any debris, plant fragments, mud etc. then rinse with water (pond water will suffice). Soak footwear/equipment in bleach solution for at least 5 minutes (if working in water) and rinse with clean water. If possible, allow to dry for before next use. Keep smaller equipment/footwear inside plastic bags during transit and storage (after thorough drying) to reduce the chance of transmitting pathogens;
- Larger equipment i.e. small plant and vehicles must be washed before they leave the Site and before arriving at the Site, if they have been used at other sites where the presence of invasive species or diseases is known;
- On-going monitoring at the Site during construction will be implemented to ensure that the presence of invasive and/or diseases is identified. Should invasive species or diseases be identified at any point then these would need be managed through a management plan to be implemented by appointing a suitably experienced contractor/specialist;
- Safeguards must be put in place to prevent pollution or run-off events arising from construction.

[illegible]

Appendix 2: Protected and Notable Species Best Practice Measures

Mitigation	Species concerned	Reason	Timing
Toolbox Talk (TbT) & Ecological Clerk of Works (ECoW) Provision			
All site personnel will be briefed during their site induction by an ECoW on the potential presence of wildlife on the Site. A TbT (see Appendix 2) including an identification guide will be provided and shown to all site personnel and will be made available for reference at all times.	Badgers, bats, birds, hedgehog.	To ensure all site personnel are aware of the potential presence of wildlife on the Site, identify areas with an increased risk of presence, and explain the relevant legislation and the proposed methods of working as detailed below. To ensure that all site personnel are aware of appropriate precautionary measures to minimise the risk of committing an offence during the works.	Prior to works commencing.
Vegetation Clearance			
Clearance of suitable shelter/hibernation habitat (i.e. tall grass/grass tussocks, habitat piles (leaves, brash, rubble etc.) will avoid the winter hibernation period (which runs from November to March inclusive and is weather dependant in April	Hedgehog	To minimise the risk of harming wildlife during clearance of the sites, with individuals likely to be concealed below ground or in	Site clearance undertaken from April to October

and October. If hedgehog nesting/hibernation sites are encountered the area will be buffered with a 10 m no works zone and works in the areas will be postponed to after the hibernation season.		sheltering habitat during their hibernation phase (from November to February, weather dependent April & October).	(weather dependent, see below).
All aspects of vegetation removal and removal of suitable habitat to be supervised by a suitably experienced ECoW to check for wildlife and relocate individuals if necessary. Prior to any clearance works in suitable habitat the area to be cleared will be subject to a fingertip search by the ECoW to check for sheltering wildlife. Any individuals encountered will ideally be allowed to move away from the area of their own volition, or alternatively be carefully captured by the ECoW and relocated to suitable habitat beyond the zone of works e.g. Biodiversity Protection Zone (BPZ). Tall vegetation will then be reduced to 100 mm and the area re-checked by the ECoW before vegetation is taken down to 50 mm or bare ground as appropriate. Site clearance to be completed in a systematic, directional manner to be outlined by the ECoW. This will ensure that vegetation is cleared towards the most suitable off-site habitat, to allow wildlife in the vegetation to move off in this direction. In the unlikely event that more than low numbers (more than five of a species) of wildlife are encountered during ECoW works, works will cease and the appropriate working practices be reviewed by the supervising ECoW. Basic measures during vegetation clearance such working in a systematic direction, e.g. north to south or east to west, will help	Hedgehog and other wildlife.	To significantly reduce the likelihood of harm to wildlife during the Site's preparation.	During clearance of suitable habitat on the Site.

to reduce impacts on invertebrates. Avoid tree roots and stand-off from mature trees as much as possible. Excessive trampling and compaction of soil will also be avoided.			
If vegetation clearance is required during the main nesting bird season (typically March to August, inclusive) there is potential for active bird nests of common species to be destroyed during tree or scrub clearance works on the Site. Where vegetation clearance is required within this period, a nesting bird check, to be undertaken by a suitably qualified ecologist will be required no more than 24 hours prior to clearance commencing, to check for the presence of active bird nests. An active nest would require an exclusion zone to be established and adhered to until chicks had fledged and/or the nest is no longer in use (to be monitored and confirmed by the ECoW).	Birds		
The two ash trees present at the Site are due to be retained. Due to the original bat roost assessment being undertaken in 2021, an update bat roost assessment is advised prior to works commencing to determine the current suitability of these trees and the telegraph for the roosting bats. This will determine any further survey and/or mitigation requirements in respect of the trees.	Bats		
Once all clearance of suitable habitat has been completed on the Site (to be confirmed by ECoW) construction works can continue unsupervised. After this time the construction footprint will be	All Wildlife.	To discourage recolonization by wildlife during the construction stage.	Post Site clearance and to be

maintained as short vegetation (less than 50 mm)/bare ground as appropriate until works are completed and the Site is ready for re-seeding.			maintained until construction is complete.
Lighting			
Night working during the construction phase will be avoided where possible and construction practices will follow best practice in terms of dust and noise and control. If lighting is implemented during the construction stage it must be directed away from retained and off-site vegetated habitats (including scattered trees and boundary hedgerows) to allow badgers and bats to continue to use such habitats for foraging and commuting. No artificial lighting will be placed near to any potential bat roost features (retained trees with suitable features). No nighttime security lighting would be used. However, if short term lighting is needed during construction, when daytimes are short, unnecessary light spill would be controlled through a combination of directional lighting, low lighting columns (reduced wattage lamps and louvres), hooded/shielded luminaires and/or strategic screening planting. All luminaires will lack Ultraviolet (UV) elements and metal halide, fluorescent sources will not be used. LED luminaires will be used where possible with a warm white spectrum adopted (<2700 Kelvin (oK)).	Badger, bats, hedgehog	To safeguard badger, bats and other wildlife that is nocturnal that use the sites for foraging/commuting purposes.	At all times.

Good Site Housekeeping			
All materials (construction materials) on the Site to be stored in a suitable location away from suitable refugia habitat (i.e. tall ruderal vegetation, brash/logs/rubble) and ideally risen off the ground) (e.g. on pallets) or on hard standing/bare ground. If earth spoil arises from the works this will be removed from the Site as quickly as possible or placed in a skip or other sealed container immediately if stored on the Site. Good general housekeeping of the Site will be employed to ensure there is no build-up of debris.	Badger, hedgehogs.	To avoid colonisation by refuging reptiles or other animals and to ensure there is no build-up of debris or other waste which may create suitable habitats for protected species.	At all times.
Hedgehogs and badgers are highly mobile and inquisitive animals that have potential to move onto the Site or be resident within these Site at any time. As a precautionary measure, any deep excavations left overnight must be covered or and shallow excavations have a suitable escape ramp (if uncovered), e.g. a long scaffold board, inserted to allow escape should badger or hedgehog fall in. The board will act to allow any animals entering the excavation to escape which is particularly important if the excavation fills with water. Excavations will also be inspected each morning to ensure that no animals have become trapped overnight.	Badger, hedgehog.	To prevent wildlife from getting trapped overnight or injuring themselves.	Overnight during the construction works.
Food/litter will not be left on the Site.	All wildlife.	To prevent wildlife from approaching the sites.	At all times.
Encountering Wildlife			

If in the unlikely event that badgers are suspected to be associated with the Site once construction has commenced, including a suspected badger sett found on or within 30 m of the Site during the works by a contractor, works must cease (where safe and practical to do so) and an appropriately experienced ecologist will be contacted for advice before continuing.	Badgers	To protect animals in the event that they are present at the time of works.	At all times.
In the unlikely event a bat is identified on the Site during the works, a suitable experienced ecologist should be immediately contacted for advice. Note that a small number of bats in the UK have been found to carry rabies viruses called European Bat Lyssaviruses (EBLVs). EBLVs are transmitted through a bite or a scratch or from a bat's saliva coming into contact with your mucous membranes (your eyes, mouth or nose).	Bats		
If a hedgehog is encountered between November and March or juveniles are encountered (not whilst clearing the sites as specified above) the ecologist will be contact for advice immediately. If a hedgehog is encountered outside of November – March, the site personnel will allow the hedgehog to move away of its own volition, unless the animal is in immediate danger. If in immediate danger, works will stop temporarily (where safe and practical to do so) and the animal should be moved using a gloved hand into a BPZ.	Hedgehog		

