



Construction and Environmental Management Plan

Colne Spring Villa, Colney Heath, Hertfordshire, AL4 0PB

Manor Coliving Ltd

Status	Issue	Name	Date
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Guidelines

This assessment has been designed to meet:

- British Standard 42020 (2013) 'Biodiversity – Code of Practice for Planning and Development'.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

(BS 42020, 2013)

In consequence of the scale and intensity of the proposed development, this plan-led report is considered adequate and proportionate. It communicates all relevant information necessary to determine a planning application, discharge relevant planning conditions or support the recommendations for further surveys.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Manor Coliving Ltd to produce a Construction Environmental Management Plan (CEMP) for the proposed development at Colne Spring Villa, Colney Heath, Hertfordshire, AL4 0PB (hereafter referred to as the site).

The site was subject to previous ecological assessment by Arbtech Consulting Ltd, comprising:

- A Preliminary Ecological Appraisal (PEA) in July 2024;
- Arboricultural Survey in July 2024;
- Biodiversity Net Gain (BNG) Assessment in October 2024; and
- A Great Crested Newt District Licence Application in October 2024.

1.2 Project Description

This CEMP has been produced to support a planning application for the development of 9 Ecoliving cottages. A plan showing the proposed development is provided in **Appendix 1**.

1.3 Site Context

The site is located at National Grid Reference TL 20620 05372 and has an area of approximately 0.88ha comprising buildings, hardstanding, vegetated garden, modified grassland and coniferous woodland. It is surrounded by woodland to the north and south with the River Colne to the east. The site is situated ~5.5km from St. Albans city centre with the university of Hertfordshire ~2.5km to the north. The wider landscape comprises a combination of urban developments to the north east and north west with agricultural land, pockets of woodland, standing and running water and good quality grassland to the south, east and west. The underlying soil type on the site is a freely draining, slightly acid, loamy soil. A site location plan is provided in **Appendix 2**.

1.4 Scope of This Report

The aim of this CEMP is to provide ecological mitigation prescriptions to ensure ecological receptors recorded during previous ecological assessments will be suitably protected during construction.

2.0 Ecological Baseline Conditions Relevant to This Report

The baseline ecological conditions of relevance to this report were determined as a result of the previous ecological assessments undertaken at the site: the PEA (Arbtech Consulting Ltd. 2024).

2.1 Habitats Recorded on and adjacent to the Site

The site is characterised by an area of woodland, existing buildings and a garden. Habitats recorded on site include:

- Other Coniferous Woodland;
- Buildings;
- Developed Sealed Surface;
- A pond;
- Vegetated Garden; and
- Artificial Unvegetated Unsealed Surface.

2.2. Value to Protected/Notable Species

Given the type and extent of habitats recorded and the assessed connectivity between the site and the wider landscape, the site was assessed to provide opportunities for the following protected and/ or notable species:

- Amphibians;
- Reptiles;
- Badgers;
- Hedgehogs;
- Bats;
- Common species of nesting birds; and
- Riparian Mammals.

The site is not considered suitable to support any other protected and/ notable species.

Amphibians

One pond is located within the site boundary and a total of four offsite ponds are located within 500m of the site boundary, with two of these ponds located within 100m. The pond represents suitable aquatic habitats, while the coniferous woodland provides good terrestrial habitat and has areas of bramble scrub and many log piles present throughout, which represent shelter/hibernation opportunities for amphibians. The vegetated garden is considered to offer some limited opportunities within grassland areas, restricted by a regular mowing regime that exists. Shrubs present within the vegetated garden are considered to offer shelter/hibernation opportunities for amphibians.

Reptiles

The grassland onsite is considered unsuitable for reptiles due to its regular intensive management, however may be used for dispersal. The woodland presents suitable commuting and resting/hibernation opportunities for reptiles, the log piles and bramble scrub present within the woodland are of particular hibernation/sheltering value.

Badgers

No evidence of badger was recorded within the site. The woodland present provides good sett building opportunities for badger, as well as foraging and commuting habitat. The vegetated garden is also considered to represent suitable foraging habitat for badgers.

Hedgehogs

The woodland present provides good foraging and commuting habitat, the bramble scrub and log piles within the woodland present suitable shelter/hibernation opportunities for hedgehog. The vegetated garden is also considered to represent suitable foraging/sheltering habitat for hedgehog.

Bats

The woodland represents suitable foraging and commuting habitat for bats. Four trees within the woodland were also identified as having developed features that may provide suitable roosting habitat for bats. The onsite buildings were not assessed for their suitability to support roosting bats, as it are understood they will be retained as part of the proposals.

Nesting Birds

The trees and scrub within the woodland are considered to offer suitable nesting opportunities for birds.

Riparian Mammals

There are no riparian habitats on or adjacent to the site. The River Colne is located ~50m to the east of the development boundary, which hosts known populations of otters and water voles. Water voles are unlikely to travel such a distance inland. The presence of transient otters on site is unlikely but cannot be discounted.

2.3 Scope for Mitigation

Habitats on site are assessed to provide opportunities for foraging and commuting bats, badgers, nesting birds, hedgehog, reptiles, amphibians and riparian mammals. Although the site is not assessed to represent a significant resource for these species in the context of the wider landscape, there is suitable connectivity to the site for these species and their presence for transient periods cannot be discounted. It is therefore assessed that mitigation appropriate to the scale of the development targeting these species groups, as well as onsite/adjacent retained habitats will prevent any significant impacts from occurring during construction.

3.0 Construction and Environmental Management Plan

Mitigation prescriptions to reduce adverse impacts to ecological receptors as identified through the PEA are detailed in **Table 1** below.

Table 1: CEMP

Mitigation	Specification
<p>Persons Responsible and Lines of Communication</p>	<p>Overview In order to ensure ecological mitigation prescriptions are effectively applied during development works, it is required to ensure persons responsible and lines of communication are clearly set out and maintained throughout the proposed development.</p> <p>Mitigation It is recommended that a Development Biodiversity Champion is selected for the construction phase of the development. The Biodiversity Champion should be someone with significant influence during construction, such as the contract or project manager. The Development Biodiversity Champion will be responsible for ensuring all actions outlined in this CEMP are implemented. Any queries with regards to the mitigation prescriptions should be addressed to the project ecologist and communication should be retained between the Development Biodiversity Champion and project ecologist throughout the construction phase of the development to ensure the mitigation is applied and impacts to ecological receptors are effectively minimised. The project ecologist’s contact details are located on the title page of this report. It is recommended that the Biodiversity Champion informs the project ecologist of the commencement of construction works and provides updates where necessary.</p> <p>Ecological Clerk of Works A suitably qualified ecologist will be present to act as an ecological clerk of works (ECoW). The ECoW undertaking works relating to amphibians must be a holder of a GCN Class 1 or 2 licence. The primary responsibility of the ECoW will be to ensure the on-site development area is appropriately clear of hedgehog, amphibian and reptile habitat prior to allowing works to commence in the absence of ecological supervision. The ECoW will be present to supervise site clearance works required to facilitate the development until the ECoW is satisfied that the pre-requisite mitigation prescriptions have been completed effectively and the risk to hedgehog, amphibians and reptiles has been reduced to an acceptable level. The ECoW will provide formal confirmation of compliance via email or the production of a File Note, confirming when works are able to proceed without supervision.</p>
<p>Obtain Natural England GCN Licence</p>	<p>A GCN District Licence will be obtained from Natural England prior to any commencement of construction works within the site.</p>

<p>Pollution prevention to prevent indirect impacts to retained and adjacent habitats</p>	<p>Pollution resulting from increased levels of water runoff and airborne particles during construction works have potential to pollute the pond and woodland habitats, as well as adjacent habitats including the watercourse located ~50m east of the site. To mitigate the potential for indirect impacts resulting from the construction phases of the development, works must be completed in accordance with statutory guidance relating to pollution prevention. Specifically, prescriptions detailed within Environment Agency Pollution Prevention Guidance note GPP6: Working at <i>Construction and Demolition Sites</i> (Environment Agency 2014) is of relevance to the project. Considering this guidance document, the below mitigation prescriptions are considered suitable to mitigate impacts of pollution to an acceptably low level. The Development Biodiversity Champion will be responsible for ensuring the below mitigation recommendations are undertaken successfully during the works.</p> <p>Materials Storage and water run-off:</p> <p>The Development Biodiversity Champion will ensure that:</p> <ul style="list-style-type: none"> • No stockpiles are created on exposed ground areas and ensure that all materials and chemicals are stored securely and safely on site in accordance with current Control of Substances Hazardous to Health (COSHH) regulations (HSE 2002). • Stockpiles are located within the development area only and beyond 10m of the watercourse and lake, on level ground to prevent any accidental run-off. • Contaminated materials, chemicals, and other hazardous substances must be stored on an impermeable surface and beyond 10m of the pond, in a bunded area, within the development area only as per current containment system guidelines (CIRIA 2014). • All refuelling of equipment to be undertaken a minimum of 30m from the pond. A refuelling area will be designated onsite, with appropriate signage. • All chemicals and hazardous substances must be stored away from areas where there is heightened risk of damage from impact or collision such as areas of intense vehicle and pedestrian movement. • All chemicals and hazardous substances must be labelled, and their containers effectively sealed when not in use. Such container must be inspected regularly and fit for purpose. • Any damaged or old containers must be replaced in line with the duty of care requirements. Note such containers may be considered hazardous waste and their disposal must be undertaken appropriately. • Staff are trained in use of spill kits and emergency procedures. • Ensure there is a designated 'responsible person' on site at all times. • Lock storage facilities when not in use. <p>Airborne particle suppression:</p> <p>The Development Biodiversity Champion will ensure that:</p>
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	<ul style="list-style-type: none"> • Effective water suppression is used during demolition and construction operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground. • Bag and remove any biological debris or damp down such material before demolition. • Carry out regular site inspections to monitor compliance. • Ensure all vehicles switch off engines when stationary. • Avoid the use of petrol- or diesel-powered generators and use mains electricity or battery power where possible. • Only use cutting, grinding, or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction. Such works will only be undertaken outside of the 50m watercourse buffer. • Ensure an adequate water supply on the site for effective dust/ particulate matter suppression/ mitigation, using non-potable water where possible and appropriate. • Use enclosed shuts and conveyors and covered skips.
<p>Protection of terrestrial/aquatic mammals during construction</p>	<p>Overview</p> <p>Although no evidence indicating the presence of badgers, otters or hedgehog was recorded during the site surveys, given the suitable habitat present onsite, precautionary mitigation is recommended to ensure no harm to these species occur during construction activity.</p> <p>Mitigation</p> <p>A pre-commencement inspection for otters and badgers will be undertaken within 1 month of the commencement of construction works. The inspection will be undertaken within the site itself and any adjacent accessible areas. In the event any potential otter holts or badger setts are identified within 30m of proposed construction works, further trail camera monitoring surveys would be undertaken to establish presence/absence of these species. In the event any confirmed otter holts, or badger setts are identified within the site and located within 30m of proposed construction works, a licence would likely need to be obtained from Natural England prior to any construction works commencing within 30m.</p> <p>Pre-Development Destructive Searches of Refugia</p> <p>The ECoW will survey the development area to be impacted for any features suitable for refuge for hedgehog (such as rock piles, log/brush piles etc.); any suitable features will be carefully dismantled by hand outside of the hibernation window for hedgehog (November – February inclusive) and removed from the impacted area by the ECoW. If any hedgehogs are found these will be allowed to disperse of their own accord or, if at immediate risk, will be moved by hand to a sheltered, vegetated area away from disturbance.</p> <p>The following precautionary method will be adhered to throughout construction:</p>

	<ul style="list-style-type: none"> • Deep excavations will be required during construction activity. Deep excavations could trap terrestrial mammals and cause injury or death. Therefore all excavations will either be covered overnight, or a ramp will be installed to enable any trapped animals to escape such as a piece of rough timber. Should any trapped terrestrial mammals be found the project ecologist should be contacted for further advice. • The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which terrestrial mammals could use. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations to prevent ingestion by species potentially present during development works. <p>In the event that any mammal holes are discovered during construction, all excavation works will cease and advice will be sought from a suitably qualified ecologist before resuming.</p>
<p>Precautionary Methods of Working - Nesting bird check</p>	<p>Overview</p> <p>Areas of woodland are to be removed to facilitate the proposed development, which will involve removal of trees and bramble scrub. The removal of such vegetation has the potential to disturb/kill nesting birds if present.</p> <p>Mitigation</p> <p>The removal of scrub/trees will be undertaken outside the core breeding bird season period, which is typically between 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation will be undertaken by a suitably qualified ecologist no more than 24 hours prior to the commencement of work. All active nests will be retained until it has been confirmed by a suitably qualified ecologist that the young have fledged and no construction works will be undertaken within 5m of any active nest.</p>
<p>Precautionary methods of working – Amphibians/reptiles sensitive vegetation removal</p>	<p>Overview</p> <p>It is likely that reptiles and amphibians including GCN may be present within the woodland and vegetated garden habitats. The proposals will result in the loss of woodland including trees and bramble scrub, which could potentially kill/injure reptiles and amphibians in the absence of mitigation. As such, sensitive vegetation clearance will be undertaken within the site with regard to these faunal groups. In addition, a GCN district licence will be obtained from Natural England in advance of any vegetation clearance works to ensure legal compliance.</p> <p>Toolbox Talk</p> <p>The ECoW will provide a toolbox talk to contractors immediately prior to vegetation clearance works to facilitate the development and habitat creation to highlight the potential presence of amphibians/reptiles, outline indicators of their presence, and to inform of protocol if an amphibian/reptile is found.</p>

Pre-Development Destructive Searches and Vegetation Clearance

The removal of refugia and vegetation clearance works must be undertaken outside of the hibernation period for amphibians and reptiles, which is typically between November and February inclusive and only when minimum overnight temperatures $>5^{\circ}\text{C}$. Amphibians and reptiles are mostly torpid during this timeframe and are thus most vulnerable to injury or death. Undertaking vegetation clearance works during their active period will allow individuals to disperse unperturbed to adjacent retained habitats if disturbed.

The ECoW will survey the development area to be impacted for any features suitable for refuge (such as rock piles, log/brush piles etc.); any suitable features will be carefully dismantled by hand and removed from the impacted area by the ECoW. Following the removal of any refugia by the ECoW, sensitive vegetation clearance can then be undertaken.

Any areas of long grassland (a sward height of $>20\text{cm}$) and bramble scrub, will be subject to sensitive vegetation clearance during the active season for amphibians and reptiles, through a phased cutting method undertaken in two stages; the first cut will remove all vegetation to approximately 200-300mm and the second cut will be to ground level/bare ground, with a fingertip search undertaken by the ECoW between first and second cuts. Amphibians and reptiles are most likely to be present at or just below ground level; the phased technique allows any individuals present at this vegetation level to disperse. The systematic vegetation cutting must be applied to both cutting phases and comprises cutting systematically towards areas of retained habitat (such as the retained sections of woodland) to encourage any individuals to retreat to retained habitat unharmed. This method also prevents the creation of habitat islands during the second cutting phase which has potential to trap individuals in isolated pockets of habitat and thus increase the potential for injury or death during works. A suitable systematic cutting technique is exemplified below on **Figure 1**.

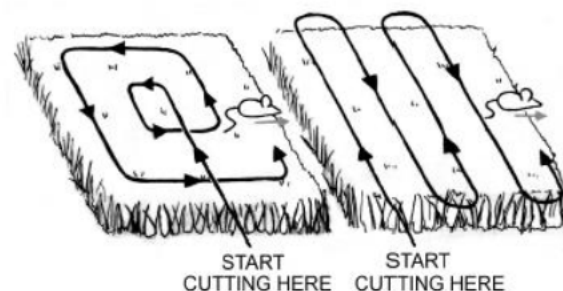


Figure 1: A schematic representation of vegetation cutting patterns as best to eliminate terrestrial opportunities for amphibians and reptiles.

Displacement of Amphibians and Reptiles

Should any amphibians or reptiles be found during the works, these individuals will be carefully removed from the development area by the ECoW and placed within suitable retained habitat such as the retained areas of woodland.

The scrub and trees will comprise subterranean root networks that provide refuge opportunities for amphibians and reptiles. Upon completion of the two-stage cut, the root balls will be removed during the active amphibian/reptile season in a phased approach, whereby hand tools (where possible) or small plant machinery will be used to pull the root ball approximately 30cm out of the ground during each pulling phase followed by a break for the ECoW to check for the presence of amphibians and reptiles. This procedure will continue until the roots have been removed. Holes created will then be infilled and subject to trampling/ light rolling to prevent recolonisation.

Once sensitive vegetation clearance has been completed, this development area will be managed as bare ground or very short vegetation (<50mm) throughout construction, which is unsuitable to support reptiles and amphibians for prolonged periods and is likely prevent individuals from recolonising the development area prior to works. All vegetation arisings/ logs created from the cutting will be removed from the area; a proportion of the arisings and logs will be used to create new hibernacula within the retained habitat sections on site where possible. This will enhance the retained habitats for reptiles and amphibians whilst ensuring the cleared sections of the site remain unsuitable to support this species during construction.

Removal of Debris and Storage of Building Materials

Once the above mitigation prescriptions have been completed and the on-site areas have been suitably prepared for development, excavation and construction activity can commence in the absence of an ECoW. However, in order to prevent the creation of large debris piles resulting from development works that could in turn become suitable refuge hibernacula for amphibians and reptiles, all debris will be stored over hardstanding or within a skip. Furthermore, the storage of building materials should also be located over hardstanding or stored on pallets to prevent providing temporary refuge value to amphibians/reptiles within the development area.

Prevent Trapping Amphibians and Reptiles During Works

Deep excavations will be required during construction activity. Deep excavations could trap individuals and cause injury or death. All excavations will therefore either be suitably sealed overnight, or a ramp will be installed to enable any trapped animals to escape such as a piece of rough timber that is long enough to reach the base of the excavation from ground level. Should any trapped animals be found, the Development Biodiversity Champion will contact the project ecologist for advice on how to proceed.

<p>Protection of retained trees</p>	<p>The root protection areas of retained trees will be protected during construction and will be fenced accordingly in order to prevent encroachment by machinery/vehicles that could potentially damage root systems. Detailed mitigation pertaining to the protection of retained trees will likely be detailed within an Arboricultural Impact Assessment. Any mitigation measures detailed within an Arboricultural Assessment will be adhered to in full.</p>
<p>Wildlife sensitive lighting strategy</p>	<p>Overview Habitats within and immediately adjacent to the site are likely to be utilised by light sensitive protected and/or notable species including bats, badgers and otters, in particular the onsite woodland, pond and adjacent woodland habitats. As such, the installation of external lighting could deter these species from the site. Mitigation is therefore required to minimise impacts of artificial light disturbance resulting from the proposed development during construction.</p> <p>External Lighting During the Construction Phase Works will be completed during daylight hours only (starting one hour after sunrise and ceasing one hour before sunset). This will prevent indirect impacts occurring to nocturnal wildlife on and adjacent to the site as a result of artificial lighting.</p>

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Appendix 1: Proposed Development Plan



Appendix 2: Site Location Plan



Appendix 3: Legislation and Planning Policy

LEGAL PROTECTION

National and European Legislation Afforded to Habitats

International Statutory Designations

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are sites of European importance and are designated under the EC Habitats Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) and the EC Birds Directive 2009/147/EC on the conservation of wild birds respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive the, Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe in order to conserve the 189 habitats and 788 species (non- bird) identified in Annexes I and II of the Directive (as amended).

SPAs are classified under Article 2 of the EC Birds Directive both for rare bird species (as listed on Annex I) and for important migratory species. SACs and SPAs up to 12 nautical miles (nm) from the coast are afforded protection in the UK under the Conservation of Habitats and Species Regulations 2010 which consolidate all amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994. In Scotland, the requirements of Habitats Directive are implemented through a combination of the 1994 and the 2010 (reserved matters) Regulations. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a means for designating and protecting SACs in UK offshore waters (from 12-200 nm).

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and recognises the importance of wetland ecosystems in relation to global biodiversity conservation. The Convention refers to wetlands as “areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres” however they may also include riparian and coastal zones. Ramsar sites are statutorily protected under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. The Government in England and Wales has issued policy statements which ensure that Ramsar sites are afforded the same protection as areas designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

National Statutory Designations

Sites of Special Scientific Interest (SSSI) are designated by nature conservation agencies in order to conserve key flora, fauna, geological or physio-geographical features within the UK. The original designations were under the National Parks and Access to the Countryside Act 1949 but SSSIs were then re-designated under the Wildlife & Countryside Act 1981 (as amended). As well as reinforcing other national designations (including National Nature Reserves), the system also provides statutory protection for terrestrial and coastal sites which are important within the European Natura 2000 network and globally. Further provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and the Nature Conservation (Scotland) Act 2004.

Local Statutory Designations

Local authorities in consultation with the relevant nature conservation agency can declare Local Nature Reserves (LNRs) under the National Parks and Access to the Countryside Act 1949. LNRs are designated for flora, fauna or geological interest and are managed locally to retain these features and provide research, education and recreational opportunities.

Non- Statutory Designations

All non-statutorily designated sites are referred to as Local Wildlife Sites (LWS) and can be designated by the local authority for supporting local conservation interest. Combined with statutory designation, these sites are considered within Local Development Frameworks under the Town and Country Planning system and are a material consideration during the determination of planning applications. The protection afforded to these sites varies depending on the local authority involved. Regionally Important Geological Sites (RIGs) are the most important geological and geomorphological areas outside of statutory designations. These sites are also a material consideration during the determination of planning applications.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are designed to protect 'important' countryside hedgerows. Importance is defined by whether the hedgerow (a) has existed for 30 years or more; or (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys without the permission of the local authority. Hedgerows 'within or marking the boundary of the curtilage of a dwelling-house' are excluded.

National and European Legislation Afforded to Species

The Habitats Directive

The EC Habitats Directive aims to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those species of European importance. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (the Conservation Regulations) and the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended). The following notes are relevant for all species protected under the EC Habitats Directive:

In the Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.

The Habitats Regulations do not define the act of 'migration' and, therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.

In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three 'tests': the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment;

- There is no satisfactory alternative; and
- The action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

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

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds

Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CROW) Act (2000) and Nature Conservation (Scotland) Act 2004.

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

Badgers

Badgers *Meles meles* are protected under The Protection of Badgers Act which makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger
- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett or any part thereof
- Intentionally or recklessly disturb a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett
- Sell or offers for sale, possesses or has under his control, a live badger

Effects on development works:

A development licence will be required from the relevant countryside agency for any development works liable to affect an active badger sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agency's to define what would constitute a licensable activity. It is not possible to obtain a licence to translocate badgers.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it an offence to:

- Intentionally (or recklessly in Scotland) kill, injure or take any wild bird
- Intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built
- Intentionally take or destroy an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.
- Intentionally or recklessly obstruct or prevent any wild bird from using its nest (Scotland only)

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC) and are commonly referred to as "Schedule 1" birds.

This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird
- In Scotland only, intentional or reckless disturbance whilst lekking

- In Scotland only, intentional or reckless harassment

Effects on development works:

Works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Herpetofauna (Amphibians and reptiles)

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita*, pool frog *Pelophylax lessonae* and great crested newt *Triturus cristatus* receive full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

With the exception of the pool frog, these species are also listed on Schedule 5 of the WCA and they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5, Section 9(1) & (5) of the WCA, i.e. the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis*. It is prohibited to:

- Intentionally or recklessly kill or injure these species.

Effects on development works:

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for any works liable to affect the breeding sites or resting places of amphibian and reptile species protected under Habitats Regulations. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the WCA.

Water voles

The water vole *Arvicola terrestris* is fully protected under Schedule 5 of the WCA. This makes it an offence to:

- Intentionally kill, injure or take (capture) water voles
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection
- Intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection

Effects on development works:

If development works are liable to affect habitats known to support water voles, the relevant countryside agency must be consulted. It must be shown that means by which the proposal can be re-designed to avoid contravening the legislation have been fully explored e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable, and measures to ensure minimal habitat loss. Conservation licences for the capture and translocation of water voles may be issued by the relevant countryside agency (e.g. Natural England) for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will then only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of works.

Otters

Otters *Lutra lutra* are fully protected under the Conservation Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Otters are also currently protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

An EPSM Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect otter breeding or resting places (often referred to as holts, couches or dens) or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, and rear young). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored

Bats

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. All bats)
- Deliberate disturbance of bat species in such a way as:
- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;

- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
-

Effects on development works:

Works which are liable to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Dormice

Dormice *Muscardinus avellanarius* are fully protected under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Dormice are also protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

Works which are liable to affect a dormice habitat or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

White clawed crayfish

The white clawed crayfish *Austropotamobius pallipes* receives partial protection under Schedule 5 of the WCA in respect of Sections 9(1) and 9(5). This makes it an offence to:

- Intentionally take (capture) white-clawed crayfish.

Effects on development works:

The relevant countryside agency will need to be consulted about development which could impact on a watercourse or wetland known to support white clawed crayfish. Conservation licences for the capture and translocation of crayfish can be issued if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will only be granted to a suitably experienced person if it can be shown that adequate

surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of the works.

Wild Mammals (Protection Act) 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Legislation afforded to Plants

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person from:

- Intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only)
- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof
- In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:
- Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species
- Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

Effects on development works:

An EPSM licence will be required from the relevant countryside agency for works which are liable to affect species of planted listed on Schedule 5 of the Conservation or Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Invasive Species

Part II of Schedule 9 of the WCA lists non-native invasive plant species for which it is a criminal offence in England and Wales to plant or cause to grow in the wild due to their impact on native wildlife. Species included (but not limited to):

- Japanese knotweed *Fallopia japonica*
- Giant hogweed *Heracleum mantegazzianum*
- Himalayan balsam *Impatiens glandulifera*

Effects on development works:

It is not an offence for plants listed in Part II of Schedule 9 of the WCA 1981 to be present on the development site however it is an offence to cause them to spread. Therefore, if any of the species are present on site and construction activities may result in further spread (e.g. earthworks, vehicle movements) then it will be necessary to design and implement appropriate mitigation prior to construction commencing.

Injurious weeds

Under the Weeds Act 1959 any land owner or occupier may be required prevent the spread of certain 'injurious weeds' including (but not limited to):

- Spear thistle *Cirsium vulgare*
- Creeping thistle *Cirsium arvense*
- Curled dock *Rumex crispus*
- Broad-leaved dock *Rumex obtusifolius*
- Common ragwort *Senecio jacobaea*

It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by Natural England will be required for any works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored. The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto*

protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

- 1. include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;**
2. scientific and educational purposes,
3. ringing or marking
4. conserving wild animals

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.