Ecological Mitigation and Enhancement Plan

Coltslow Farm, Stanley Moss Lane, Stockton Brook, Stoke-on-trent, STAFFORDSHIRE ST9 9LH

Mr A Grocott

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Ltd. was commissioned by John Pryszlak on behalf of Mr A Grocott to produce an Ecological Mitigation and Enhancement Plan (EMP) for Coltslow Farm, Stanley Moss Lane, Stockton Brook, Stoke-on-trent, STAFFORDSHIRE ST9 9LH. This report has been prepared to discharge condition 16 of the decision notice which states:

16) Development shall not begin (including any works of demolition and site clearance) until such time as an Ecological Management Plan (EcMP) including a timetable for its implementation, has been submitted to and approved in writing by the Local Planning Authority for both the application site and land outside of the application site as defined by drawing ref. "revised location plan" dated 17th May 2017. The approved EcMP shall be implemented in full in accordance with the approved timetable. The EcMP shall include, but is not restricted to:-

• hours during which works of construction (including works of demolition and site clearance) can take place;

• all aspects of habitat creation and ongoing management, including avoidance, mitigation and compensation measures to address potential impacts on legally protected species;

• a scheme for the erection of 'wildlife fencing' around the proposed development boundary during the construction period;

• a scheme to manage appropriately Indian Balsam during pre-construction, construction and post-construction periods in order to prevent its spread;

• no plastic sheeting or mesh shall be used on any scaffolding erection during the construction period, in order to prevent potential snaring and entanglement of volant bats in the surrounding landscape;

• best practice with regard to mammals shall be followed for the duration of works, with any footings/holes to be covered at night, or a suitable method of escape provided;

• the provision of a buffer zone of at least 10 metres in width alongside the adjacent watercourse, in order to reduce potential impact on aquatic/riparian species including otter and water vole. No waste materials or contaminates shall be deposited within the buffer zone. No heavy machinery is to be used within the buffer zone. Any works that may affect the buffer zone/river corridor should be carried out under ecological supervision. If any evidence of otter or water vole is found during works, then all works shall cease and a suitably qualified ecologist shall be consulted to advise on how best to proceed;

• details of methods to be employed during all construction works, including earthworks, to limit silt mobilisation into and pollution of nearby water channels, and

storm water run-off, in accordance with the Environment Agency guidelines: EAPPG5;

• measures to be employed during construction (including works of demolition and site clearance) for any on-site storage of chemical and/or fuel storage; for on-site refuelling of machinery and vehicles; and for dealing with fuel spillage incidents;

• measures to minimise dust emissions during the construction process (including works of demolition and site clearance).

***Reason:-** In the interests of nature conservation.*

An ecological walkover survey was undertaken by Charnia Ecology in December 2016 which has been used as a baseline for this mitigation and enhancement plan.

1.2 Development Site

It is understood that the application considers the upper plateau region of land only (ca.995m2) which comprises of semi-improved grassland and is partially underlain with hardcore aggregate. There are a number of low elevation buildings; comprising of wooden, fibreglass storage/shed units present inside the development boundary to the west. In turn, storage piles, waste and rubble are present around these units. Within the wider ownership area, the site comprises of a semi-improved grassland, a small wooded embankment which leads down onto a lower floodplain area with a narrow water channel of Endon Brook present on the northern boundary.

2.0 Ecological mitigation and enhancement details

2.1 Informative

The following Tables 1 and 2 detail the mitigation, enhancement and management of the site for biodiversity.

The enhancements will include a range of site-specific, suitable and achievable biodiversity gains. Best-practice management regimes will be implemented to further increase the ecological interest of the site. These are detailed below and should be undertaken in year 1 of the ecology enhancement plan.

This is an iterative document and may be superseded by any further findings on site. If at any time during the works, bats or other protected species are discovered, all works should cease, and further survey effort may be required in order to inform appropriate mitigation.

It is the responsibility of the applicant to inform all site workers of the possibility of protected species on site and the implication of the wildlife law and advised that it is their responsibility under law to stop work and notify a suitably qualified ecologist immediately should any protected species be found.

Table 1: Mitigation, Capital Works and Enhancements in Year 1

Habitat/Species/Works	Specification
Surrounding habitats	**Dust** Typical fall-out zone for aerially mobilised construction dust is 50m. To limit the creation of dust the site will; · Ensure loading and unloading of materials is at the lowest drop height · Ensure vehicles carrying dusty materials e.g. muck away, skips etc are securely and properly sheeted before leaving site · Avoid dust creating activities during hot, dry periods · Activities creating dust will be damped down, especially during dry weather · Ensure there is a supply of water to the site to enable damping down, if this is not possible, arrange for an alternative source of water or dust suppressant and have it on stand-by should it be required. · Locate stockpiles out of the wind, or provide wind breaks to minimise dust creation **Noise** Best practice will be used on site to avoid unacceptable levels of noise and vibrations. **Lighting** Lighting will be controlled across the developed site: Low impact lighting strategies will be adopted from the guidance outlined in the new Bats and Lighting Publication produced by the Institution of Lighting Professionals and the Bat Conservation Trust "Guidance Note 08/18 Bats and artificial lighting in the UK Bats and the Built Environment series publication: http://www.bats.org.uk/news.php/406/new_guidance_on_bats_and_lighting These measures will reduce impacts on surrounding habitats and protected species.

	Timing Construction and demolition work will only take please between 8am and 6pm Monday – Friday **Water course** A buffer zone of 20m in width alongside the adjacent watercourse will be put in place, in order to reduce potential impact on aquatic/riparian species including otter and water vole. No waste materials or contaminates shall be deposited within the buffer zone. No heavy machinery is to be used within the buffer zone. Any works that may affect the buffer zone/river corridor should be carried out under ecological supervision. If any evidence of otter or water vole is found during works, then all works shall cease and Arbtech shall be consulted to advise on how best to proceed. It must be ensured that there is no silt mobilisation into and pollution of nearby water channels, and storm water run-off, in accordance with the Environment Agency guidelines: EAPPG5. Advice to limit silt mobilisation, pollution and run-off during demolition, construction and earthworks will need to be sought from a qualified hydrological engineer to incorporate into this plan which will be produced by the contractors. **Chemical and fuel storage** Chemicals and fuel will be stored in the designated area only which will be on existing hard standing and not within 20m of the water course. The final location of the storage of fuel and chemicals will be determined by the end-contractors after a site risk assessment has been carried out before site work begins. This area will be clearly signed and safely contained as per COSHH regulations.
Bat mitigation and enhancement	**If bats are found at any point during the development, work must stop and Arbtech will be contacted for further advice.** **Scaffolding:** No plastic sheeting or mesh shall be used on any scaffolding erection during the construction period, in order to prevent potential snaring and entanglement. **During and post development lighting mitigation** - Low impact lighting strategies will be adopted from the guidance outlined in the new Bats and Lighting Publication produced by the Institution of Lighting Professionals and the Bat Conservation Trust "Guidance Note 08/18 Bats and artificial lighting in the UK Bats and the Built Environment series publication: http://www.bats.org.uk/news.php/406/new_guidance_on_bats_and_lighting. The lighting on the site will: • Use narrow spectrum light sources to lower the range of species affected by lighting • Use light sources that emit minimal ultra-violet light • Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin. • Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal.

	Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only. External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on. Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available. **Enhancements -** To provide additional bat roosting habitat post development, a minimum of two bat boxes should be added to trees on site. These must face south/south west, be at least 3m above ground, be unobstructed by branches or foliage and be unlit by artificial light. The following boxes are appropriate for use on trees:



Schwegler 2FN Bat Box



Schwegler 1FF Bat Box

To provide additional roosting habitat for bats within the new building post-development, an integrated bat box will be built into the walls of the new building such as shown below:

	 *Habibat 003 Built-in Bat Box*
Birds	The building, trees and shrubs on site are suitable nesting sites. Any building/tree and scrub removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building/trees and scrub to be removed should be undertaken immediately prior to clearance. All active nests will need to be retained until the young have fledged. Install the following bird boxes on retained trees post development: Schwegler 1B nest boxes Schwegler 2H Robin Boxes Nest boxes should be positioned at least 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole. The new building will incorporate integrated swift boxes and sparrow terraces into the fabric of the walls. Alternatively wall mounted boxes can also be used. The building will have as a minimum nest sites for three pairs of swifts and three pairs of sparrows. More boxes should be added where possible. Examples of suitable boxes are shown below:



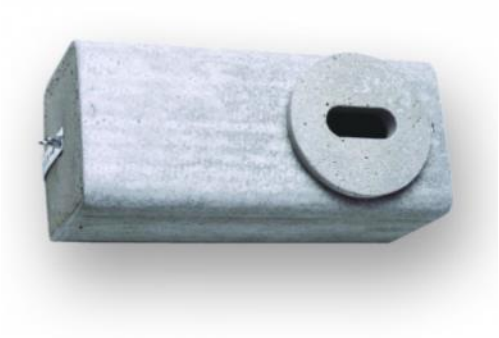
Schwegler 1SP Sparrow Terrace (wall mounted)



Habibat Sparrow Terrace (integrated)

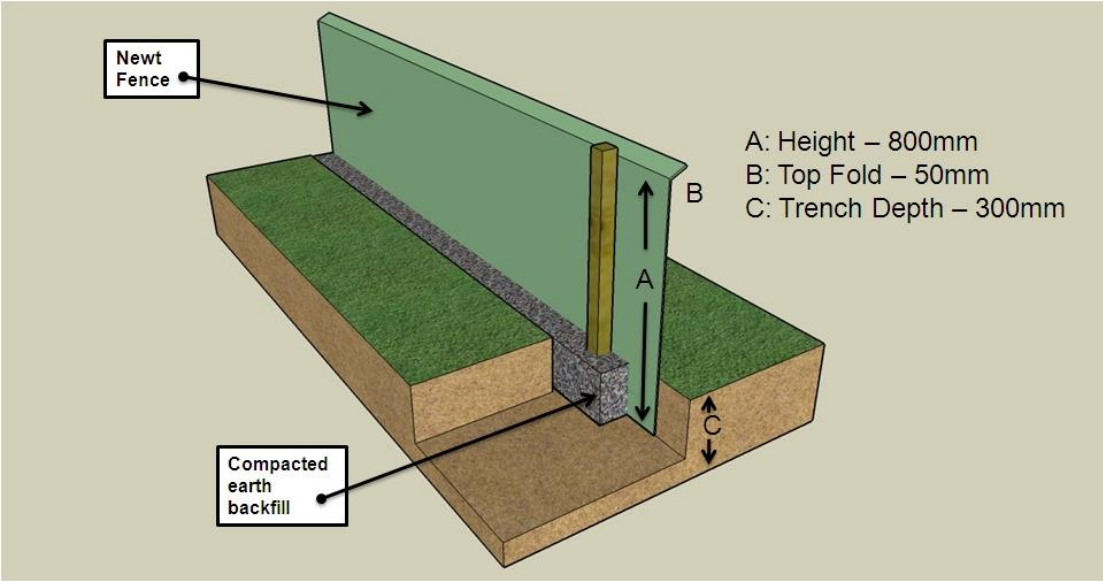


Schwegler 17A Triple Cavity Swift Box (wall mounted)



Schwegler 17 Swift Box (integrated or wall mounted)

Herptile and small terrestrial mammal mitigation and enhancement	**Vegetation Clearance – undertaken between March and October to avoid hibernation period** Vegetation removal and hand deconstruction of all refugia will be supervised by an ecologist. All ground level vegetation to be removed must be hand strimmed/cut to around 300mm moving west to east to encourage any animals present to disperse into surrounding habitats. A second cut to 150mm should then be taken 24 to 48 hours later. All arising should be removed. Topsoil can then be stripped. The following recommendations are given in order to mitigate against potential harm to terrestrial mammals and herptiles during the development works. • Any trenches dug should either be covered at night or have a rough sawn plank placed in them to act as a ramp for any wildlife which may fall in. • Security lighting to be directed away from the undergrowth. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. • Materials should be stored above ground level on pallets to avoid animals using these as refugia. Once the development area has been declared free of reptiles by the ecologist and all suitable habitat has been removed, fencing will be added around the site boundaries: **Wildlife Fencing** **Herptile fencing will be erected around the development area to prevent terrestrial mammals entering the construction area.** The semi-permanent reptile fence consists of a 1x850mm sheet of recycled HDPE plastic. In normal ground conditions, the plastic is buried to a depth of 200mm. The plastic sheet is scored 100mm in from the base to allow for the creation of a 100mm underground return. Alternatively, the plastic can be buried vertically to 300mm with no underground return. The plastic sheet is semi rigid so requires support. In normal ground conditions this is provided by 50x50x1000mm tanalised timber stakes. The sheet is fixed to the stakes using 35mm screws (3 No. per post). The plastic is scored 50mm in from the top edge. This allows for folding and the creation of an overhang to further prevent the passage of reptiles. See following drawing of herptile fence installation:



Where access is required into the trapping area, a herptile grid shall be installed to allow the free passage of vehicles. This consists of two 5metre RSJs set into a concrete beam with a gap between them. Exit points are provided at the end of the grids to allow any animals that fall into the void between the two RSJs to escape. See following drawing of a herptile grid.

New habitat

Hedgehog boxes will be added on site to provide refuge for this species. Gaps will be left in all new fencing to allow hedgehogs to move through garden habitats. See below for suitable hedgehog box;



Ecoplate Hedgehog House

Three log piles will be added next to longer vegetation, this will provide habitat for a wide range of species including invertebrates, mammals and herptiles.



Example of a log pile suitable for reptiles (froglife.org 2015)

Areas of long grassland and scrub will be included in the landscaping design to provide cover for reptiles, birds and mammals.

Figure 1: mitigation and enhancements for herptiles and mammals



Figure 2: Enhancements for bats and birds



Legend

- Bat boxes on trees
- 1B and 2H Bird boxes
- Integrated bat box
- Swift boxes/sparrow terraces

On site management and responsibility during construction	**On Site Structure and Responsibility** It is the responsibility of Mr A Grocott and the contractors to ensure the above measures are carried out. A copy of this document must be kept on site, as well as the contact details for Arbtech Consulting Ltd. If at any time during the works, bats or other protected species are discovered, all works must cease, Arbtech will be contacted and further survey effort may be required in order to inform appropriate mitigation.
Himalayan Balsam	The current extent of Himalayan balsam on site is unknown. The below guidance should be followed to control this species: Where possible, mechanical control is preferred as this does not risk chemical contamination of the water course. Mechanical control, by repeated cutting or mowing, is effective for large stands, but plants can regrow if the lower parts are left intact. The plant must be cut below the lowest node to stop regeneration. Access to the sides of riverbanks can be difficult and inaccessible stands can quickly recolonise accessible cleared areas, so vigilance is needed if an area is to be effectively cleared. Regular grazing also suppresses this species. Small infestations can easily be controlled by hand-pulling as the species is shallow rooted. Padded gloves should be worn to avoid risk of injury to hands. Seeds are not very robust and only survive for up to 18 months so a two year control programmes can be successful in eradicating this plant if there is not further infestation from upstream or adjacent sites. To avoid additional spread do not disturb plants if seeds pods are visible (usually sometime after May). Programmes should be undertaken in April or early May. If hand pulling after this time, bag plant tops to prevent seed spread. If a detailed Himalayan balsam eradication/management plan is necessary, this will require a site revisit to map out the extent of the problem, and a standalone management document.

Table 2 - Post Development Monitoring, Management and Maintenance

Activity	Year 1	Years 2 onwards
Post development check	On completion of the development and prior to occupation, an ecologist will visit the site to ensure the implementation of the above mitigation, compensation and enhancement. A letter report can then be submitted to the planning department to discharge any related conditions.	N/A
Herptiles/terrestrial mammals	Log piles will be retained long-term. Log piles can be added to with brash and cuttings from garden maintenance. Hedgehog boxes will be replaced if they become damaged. Gaps under/in fencing will be kept clear.	As year 1.
Bats/birds	Habitat boxes will be replaced if they become damaged or fall.	As year 1.
Himalayan balsam	Control measures will be carried out until the species is no longer present. On site checks will be carried out by an ecologist in years 1 and 2 to check the progress of the eradication. Further ongoing checks may be required, and the ecologist will provide advice depending on results. The site will be visited at around the same time every year and the extent of the plant will be mapped and recorded.	Control measures will be carried out until the species is no longer present. On site checks will be carried out by an ecologist in years 1 and 2 to check the progress of the eradication. Further ongoing checks may be required, and the ecologist will provide advice depending on results. The site will be visited at around the same time every year and the extent of the plant will be mapped and recorded.

Appendix 1: 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 badge sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agencyies to define what would constitute a licensable activity. It is no 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 works liable to affect the breeding sites or resting places 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.