



Ecological Mitigation Plan

82 Chichester Road, Tilehurst, Reading, Berkshire RG40 4XD

Mr A Deacon

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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 will be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker will 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 will ensure that any comments and advice made over an application are also proportionate.

This approach is enshrined in Government planning guidance, for example, paragraph 193 of the National Planning Policy Framework for England.

The desk studies and field surveys undertaken to provide a preliminary ecological appraisal (PEA) might in some cases be all that is necessary.

(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 or support the recommendations for further surveys.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Ltd was commissioned by Mr A Deacon to produce an ecological mitigation and enhancement plan for 82 Chichester Road, Tilehurst, Reading, Berkshire RG40 4XD.

A Preliminary Roost Assessment (PRA) was conducted at the site by Middlemarch Environmental in January 2018, with subsequent bat emergence/re-entry surveys June 2018. The assessment is informed by evidence gathered during these previous surveys.

1.2 Site location

The site is located at National Grid Reference SU 674 737 and has an area of approximately 0.07ha. The site is described as the following in the previous PRA report (Middlemarch Environmental, 2018):

“At the time of the survey, the site was dominated by a tarmac car park to the south and amenity grassland with ornamental planting to the north and west with a bungalow located at the centre of the site and a single storey garage located along the eastern site boundary.”

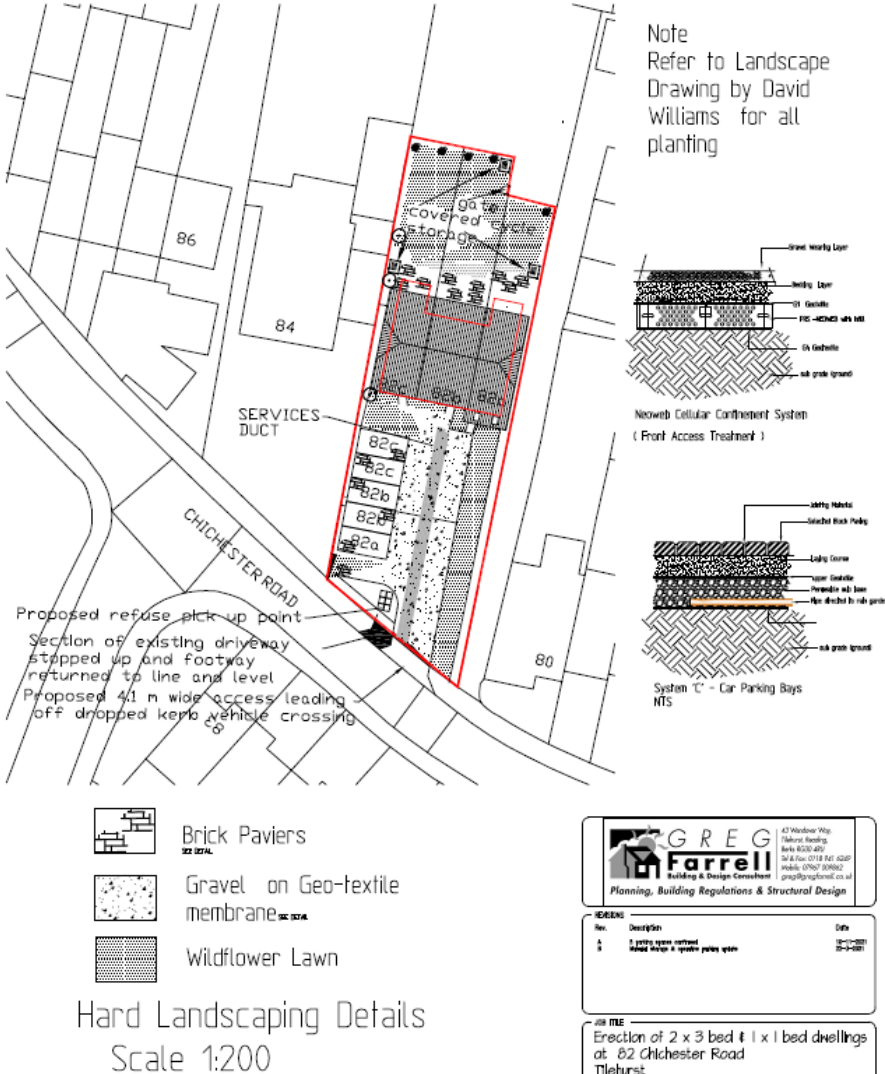
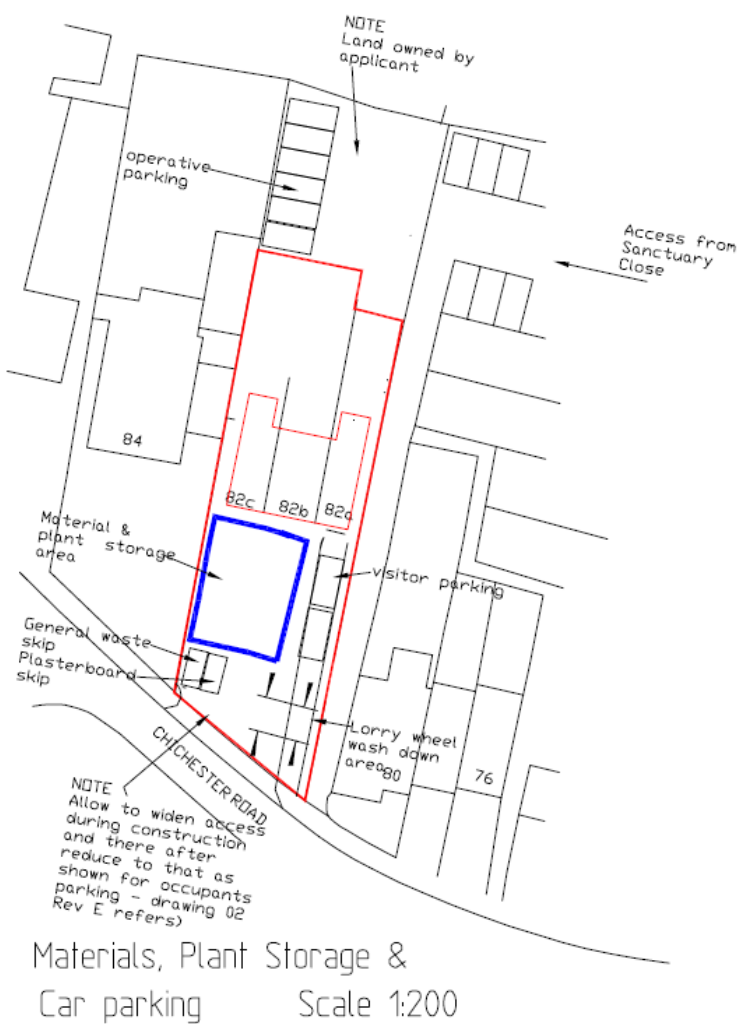
1.3 Project description

This ecological mitigation plan is prepared to support a planning application with Reading Borough Council. The proposal is described below from this planning application:

[200664]

Erection of one end terrace three bed unit, one mid terrace 3 bed unit and one end terrace 1 bed unit following demolition of existing dwelling

The current and proposed site plans are included below as figures 1 and 2.



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DESCRIPTION
No. 1
Description: 2 x 3 bed & 1 x 1 bed dwellings at 82 Chichester Road Tilehurst
Date: 20-11-2020

TITLE
Hard Landscaping, parking, storage etc

SCALE: 1:200 DATE: November 2020 DRAWING No.: 05

Figure 1: Existing site plan

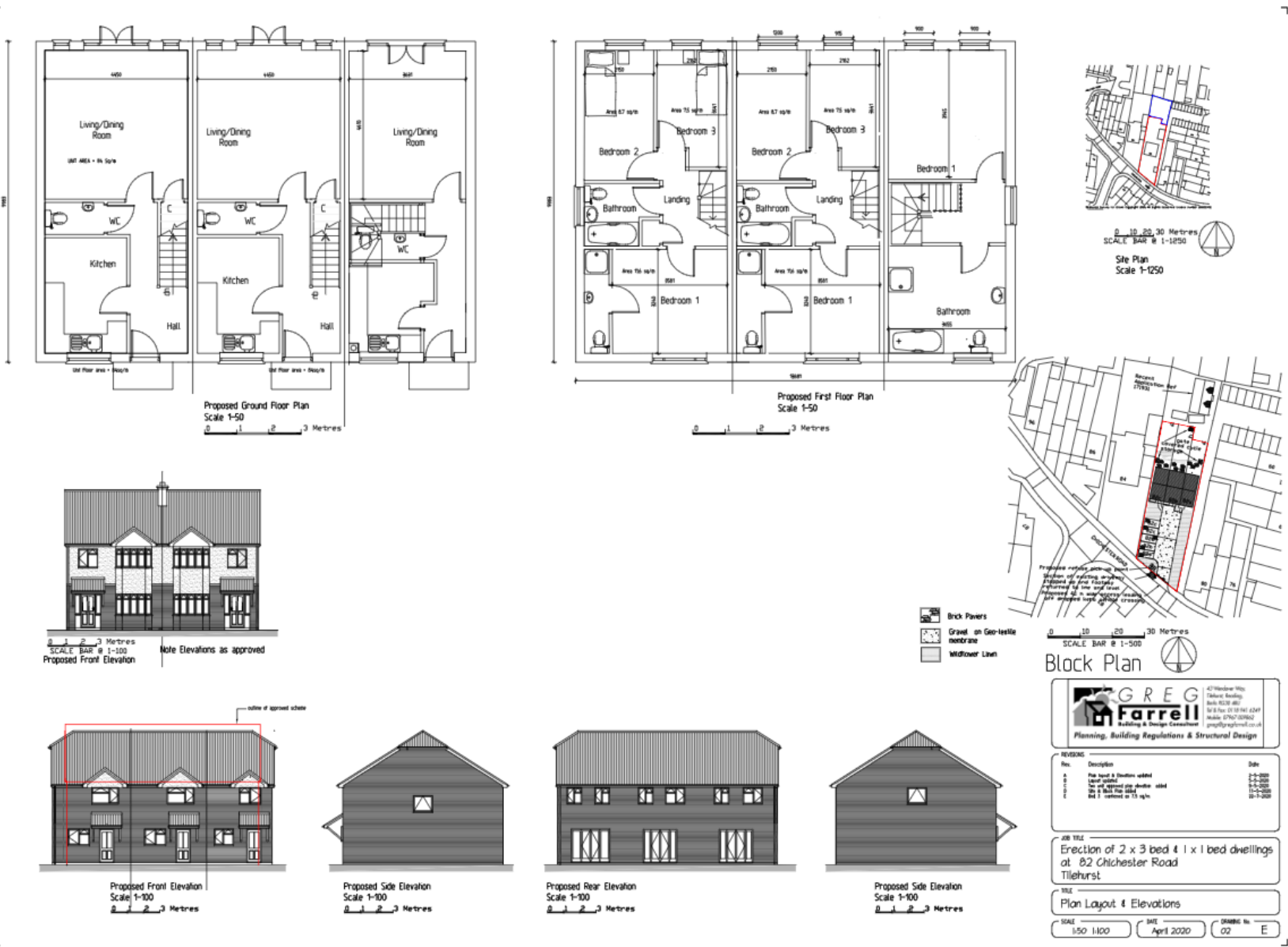


Figure 2 Proposed site plan

1.4 Scope of this report

The scope of this report is to provide a mitigation and enhancement plan for ecology in general and to outline the measures that would be used to comply with legislation. It aims to improve the site's intrinsic biodiversity value within the framework of the proposed development, or to propose changes to the plan where appropriate.

This strategy provides ecological mitigation and enhancements for the site to inform condition discharge prior to the development itself. To satisfy the condition, the measures covered in this mitigation and enhancement plan will therefore ensure there is a net gain in biodiversity interest on site.

Specifically, this report aims to discharge the conditions of planning, outlined below:

"No development shall take place until details of biodiversity enhancements, to include bat boxes, tiles or bricks on and around new buildings and native and wildlife friendly landscape planting has been submitted to and approved in writing by the Local Planning Authority. The approved measures shall be implemented prior to the first occupation of any residential unit hereby approved and maintained as such thereafter.

Reason: To incorporate biodiversity in and around developments in accordance with Paragraphs 109 and 118 of the NPPF and Policy EN12 of the Reading Borough Local Plan 2019."

This is an iterative document and may be superseded by any further findings on site, especially in relation to any taxa found during the development that require a European protected species mitigation licence (ESPML) due to disturbance (e.g. if great crested newts or bats are found during the development).

2.0 Ecological mitigation and enhancement details

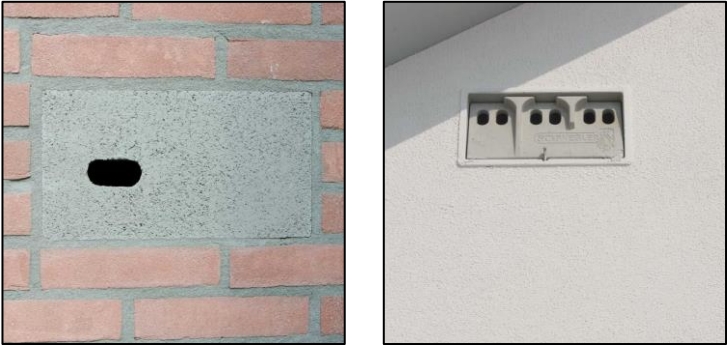
2.1 Informative and EPSL statement

The following Tables 1 and 2 detail the mitigation and enhancements of the site for ecology interest.

The enhancements will include a range of site-specific, suitable and achievable gains. Best practice management regimes will be implemented to further increase the ecological interest of the site. These are detailed below and will be undertaken either during development (e.g. those enhancements that are required to be installed during the construction of the building) or immediately upon completion of the developed site and prior to the first occupation (e.g. those enhancements that are to be placed on site).

2.3 Ecological mitigation plan

Table 1: Mitigation, Capital Works and Enhancements

Habitat/Species/Works	Specification
Nesting bird mitigation and enhancement	Bird boxes will be installed on site. These will provide excellent permanent nesting provision for local birds, and link to woodland, hedges, fields and other habitats in the wider landscape. There are no trees on site suitable for installation of bird boxes and as such bird boxes have been recommended for the new building on site. The following bird boxes will be erected on new buildings on the site: • 2 x WoodStone Build-in Swift Nest Box A • 2 x Schwegler 1SP Sparrow Terrace Swift nest boxes will be incorporated into the side of the buildings during construction at a height of at least 5m. They will be placed on the northern elevation, placed between the windows to ensure no droppings fall on the windows. Sparrow terraces will also be positioned at the eaves and can be incorporated into the fabric of the building during construction. These will be placed on the southern elevation, again between the windows to ensure no droppings fall on the windows. Please see Figure 3 for pictures of nest boxes and Figures 8 & 9 for placements. Figure 3: Swift Nest Box and Sparrow Terrace in situ 

Bat Mitigation and Enhancement

The buildings on site were determined to have moderate suitability for roosting bats. As such subsequent bat emergence/re-entry surveys were carried out. No bats were found to be roosting within the building. Three species of bat; noctule *Nyctalus noctula*, common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus*, were recorded foraging around the site during the survey.

As such the following bat boxes will be installed on site. These will provide excellent permanent roosting provision for local bats, and link to woodland, hedges, fields and other habitats in the wider landscape.

The following bat boxes will be erected in new buildings on site:

- 4 x custom brick-faced integrated Habibat Bat Box

This will be inserted into the fabric of the building during construction to enhance the developed site for bats by providing permanent roosting provision (See Figures 8 & 9 placements). The Habibat Bat Boxes are available in a variety of brick finishes to match the surrounding finish of the building. Once installed only the entrance to the bat box is visible providing a discreet aesthetically pleasing solution (see Figure 4 below).

The Habibat Bat Box will be inserted into the eastern and western elevations (two on each elevation) of the subject building. They will be positioned high on the elevation close to the eaves (between 3 and 5m), well above windows and security lights so that the entrances are not illuminated by artificial lighting (such as security lights and light spill from windows) which will impact upon bat emergence times.

Habibat Bat Boxes are suitable roosts for crevice dwelling bat species, particularly common pipistrelles *Pipistrellus pipistrellus*, soprano pipistrelles *Pipistrellus pygmaeus* and *Myotis* bat species.

Figure 4: Habibat Bat Box and Habibat Bat Box in situ



	Lighting will be controlled across the developed site. Research into the effects of artificial lighting on bats has shown that it can impact upon bat emergence times and lead to a reduced foraging time. As bats are faithful to their roost sites and commuting routes, often returning to the same site for many years so the impact of lighting on emergence times and in turn reduced foraging times can ultimately result in the roosts and foraging habitat being abandoned with impacts on survival and fecundity. The key area of the site which was found to be used by foraging and commuting bats was the rear garden (northern end) of the site. Research has shown that if lighting is increased by more than 1 lux (equivalent to full moonlight) this could have an adverse impact upon bat commuting routes (Stone, E.L. (ed.) [2013] Bats and Lighting: Overview of Current Evidence and Mitigation. Bats and Lighting Research Project, University of Bristol). Therefore, the new lighting will be strictly confined to the new buildings and existing hard standing areas, thereby leaving dark corridors of not more than +1 lux, and preventing light spilling onto the rear garden. The following measures will be adhered to preventing light spilling onto this area of the site, hence protecting the bat foraging areas and commuting routes: 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 • 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 positioned below the eaves, 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. These measures will ensure that existing bat foraging areas and commuting routes are protected from light from the developed site. It will also ensure the recurrent usage of the bat boxes that are to be placed around the site.
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Reptile and amphibian mitigation and enhancement	Waste materials created during the development e.g. log piles, brash, rocks etc. will be used to create hibernacula and refugia for amphibians. These will be positioned on the site boundaries, ideally at the northern end of the site where there will be some vegetation. The planting of wildflower meadow areas and native scrub will provide suitable habitat for reptiles.
General terrestrial mammal mitigation and enhancement	A hedgehog box will be installed to provide refuge for this species (See Figure 8 for placements). These can be bought or made (See Figure 5 for examples). The following is some advice from hedgehogstreet.org, a collaboration of the People's Trust for Endangered Species (PTES) and the British Hedgehog Preservation Society (BHPS): • When siting the box choose a shady, quiet area of the garden area • If the box lacks a tunnel entrance, try to include an interior tunnel or dividing wall to prevent predators such as badgers or foxes from getting to the hedgehog with their paws • We recommend using untreated wood for hedgehog homes. Wood from certain softwood tree species grown in the UK, such as larch, Douglas-fir and red cedar have excellent durability as exterior timbers. Pre-treated wood can contain chromated copper arsenate (CCA) compounds that are hazardous to many species. PTES promote the use of locally grown timber which encourages good woodland management practices (hedgehogstreet.org) Further, gaps will be installed in any new fencing on site to allow hedgehogs to move through garden habitats (See Figure 5 for example of a fence gap and figure 8 for placement of gaps). Figure 5: Ecoplate Hedgehog House and example of a hedgehog gap in a fence 

Herptile enhancements

Hibernacula

To add further habitat value for herptiles, one hibernacula of earth, logs and stones will be created on site (See schematic in figure 6 below and map in figure 8).

This will provide refuge and hibernation sites for amphibians and reptiles.

Points to consider when creating a hibernaculum include:

- a sunny position
- a well-drained site, not prone to flooding,
- orientation so that one of the long banks faces south,
- access to reptiles through openings of some sort,
- location in a patch of habitat favourable for dispersal, such as tussocky grassland,
- minimal public disturbance,
- size at least 4 m long, by 2 m wide, by 1 m high and ideally much larger.

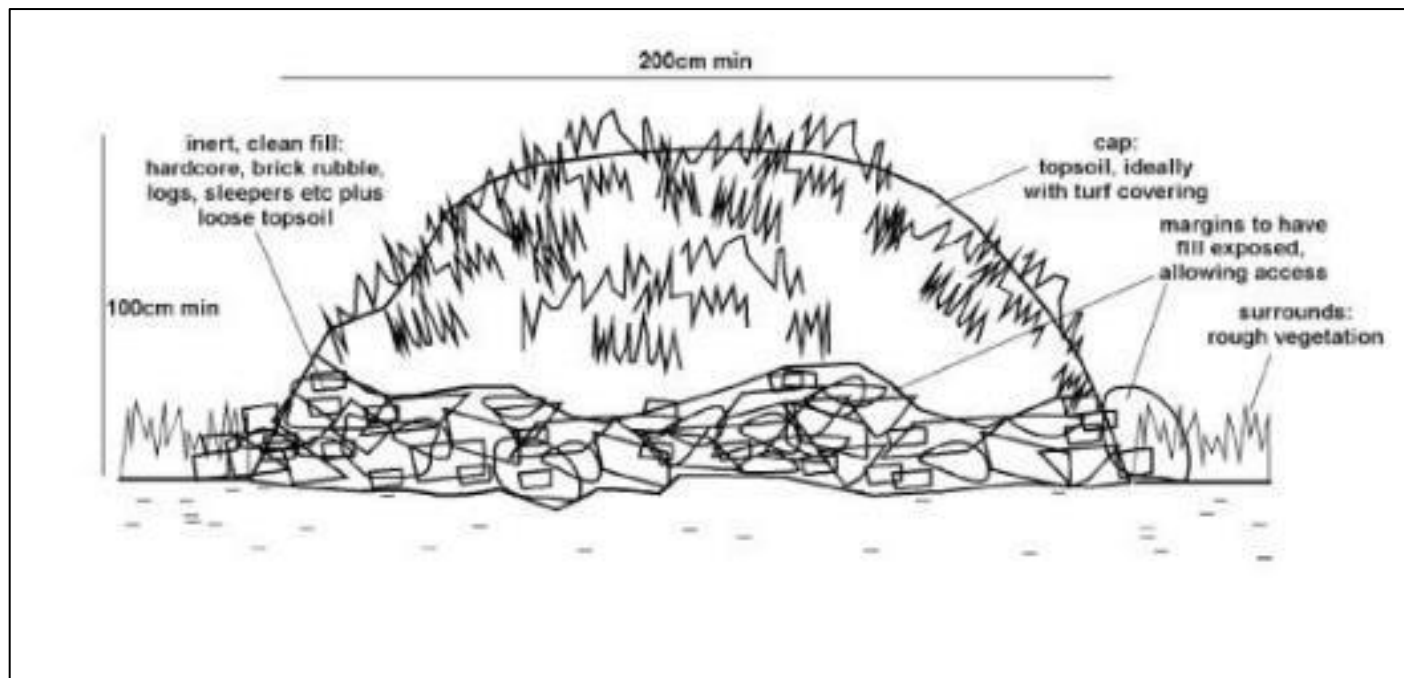
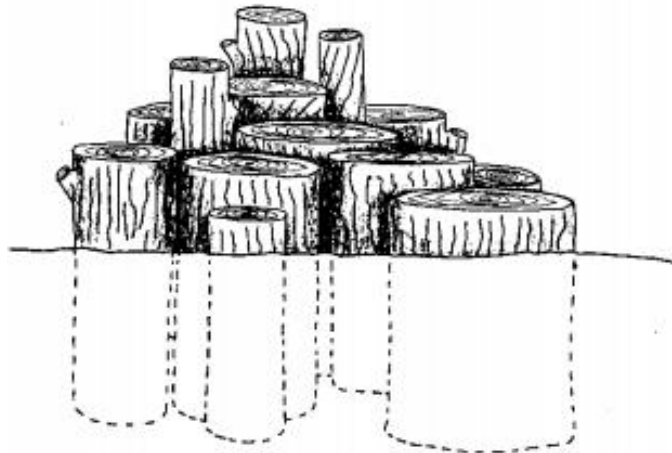


Figure 6: Hibernacula specification

Invertebrate
enhancements

Stag beetles

One stag beetle “loggers” will be installed in a corner of the site. Designs of these vary but all consist of several logs of varying sizes, semi-buried vertically into the ground to provide sustenance for growing beetle grubs (see figure 7 below for example and figure 8 for placement).



Loggers

Large logs (10-50cm diameter) of hardwood (e.g. oak, beech, sycamore, ash) with bark still attached sunk c60cm into the ground, in partially shaded areas.

Figure 7: A stag beetle logger

New habitats	A wildflower lawn will be planted at the rear of the new building (northern end of the site). Wildflower grassland within gardens is included within the local action plan under the Reading Biodiversity Action Plan. The aim is to increase habitat creation and increase suitable habitat for a number of species including bullfinch, house martins, swifts, song thrush, bats, grass snake, slow worm and invertebrates. As such the following recommendations are made for the wildflower lawn: • Em2 – Standard General Purpose Meadow Mixture will be used as this contains a mix of wildflower and grass species which will be beneficial to invertebrates, birds and bats. Included within the seed mix is a species specifically mentioned in the Reading Biodiversity Action Plan, cowslip. • A rate of 4g/m² will be used. Therefore, to cover the combined 176m² area of planting proposed in this plan, 0.7kg of seed mix is needed • The following is advised by Emorsgate Seeds: <i>Sowing: Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand.</i> <i>Management: Most sown meadow wild flower and grass species are perennial; they will be slow to germinate and grow and will not usually flower in their first growing season. There will often be a flush of annual weeds from the soil in the first growing season which may grow up and obscure the meadow seedlings beneath. This annual weed growth is easily controlled by topping or mowing. Mow newly sown meadows regularly throughout the first year of establishment to a height of 40-60mm, removing cuttings if dense. In the second and subsequent years EM2 sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing or grazing.</i> Native trees A landscape plan has already been produced for the site detailing tree planting on-site. This includes tree species, planting notes and aftercare. For full details of tree planting on-site please refer to the landscape plan (0432_A2_DWLC_LandscapePlan-L1@A1_2020-11-19.pdf).
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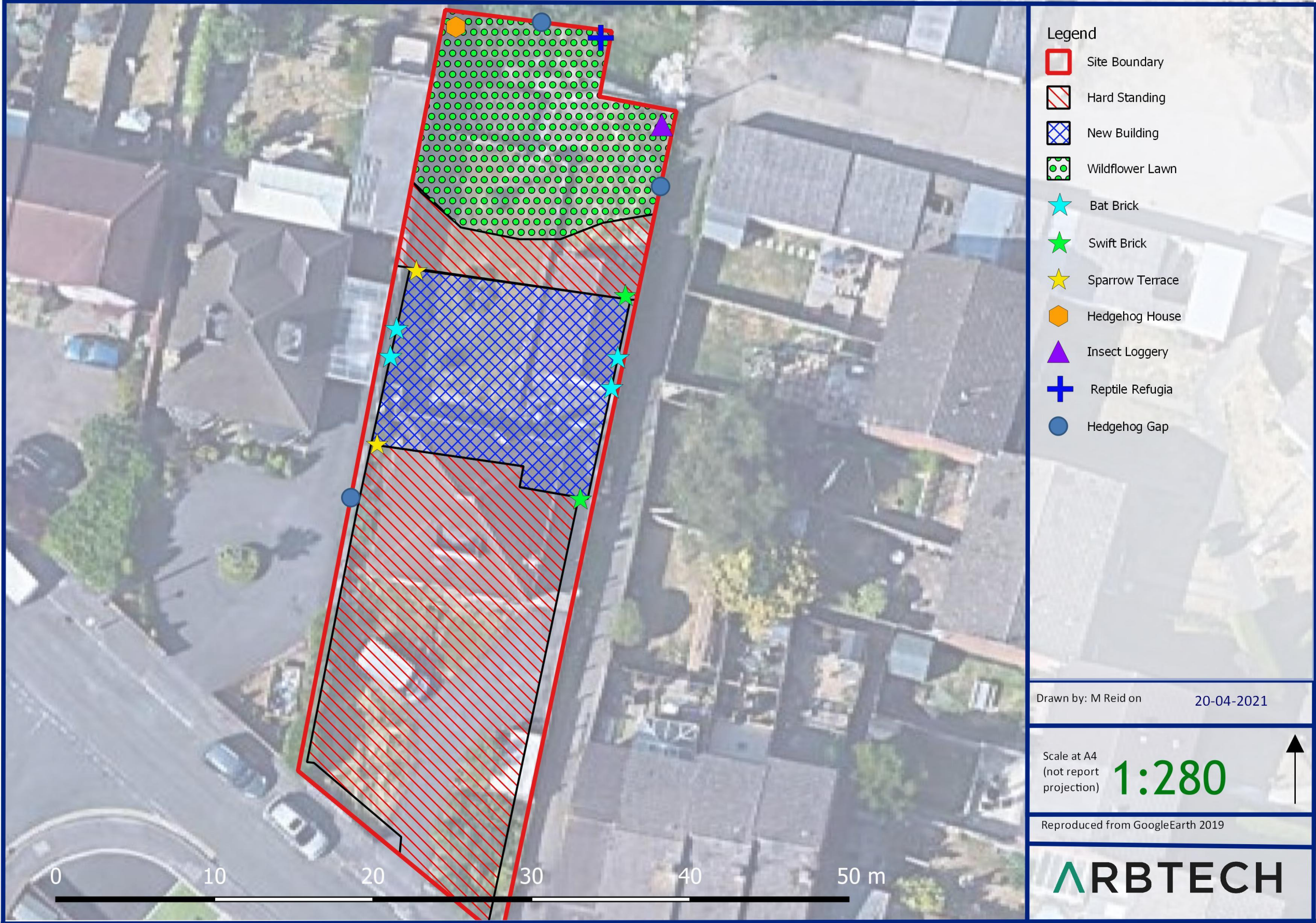


Figure 8: Combined ecological mitigation plan



Figure 9: Proposed elevations with enhancements

2.6 Management**Table 2 - Post Development Monitoring, Management and Maintenance**

Activity	Year 1	Every year for 5 years
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
Habitat boxes	Install the site's provision of habitat boxes for bats, birds, hedgehogs, reptiles and invertebrates (outlined above).	Check annually and replace any boxes that are broken or fall down e.g. during storms.
Lighting	The location and suitability of the external lighting will be checked by a bat licenced ecologist upon completion of the development*. Recommendations for improvements will be made where applicable.	Check lighting annually to maintain approved lighting levels across the developed site. No changes will be made until advice has been sought from a bat licenced ecologist.

*If this is not possible due to restrictions then photos can be provided by the client to ensure the implementation of the recommendations.

3.0 Bibliography

- BS 42020, Biodiversity – Code of practice for planning and development (2013) <http://www.eoebiodiversity.org/pdfs/BS42020.pdf>
- BS 42020, Biodiversity – Code of practice for planning and development (2013) <http://www.bsigroup.com/LocalFiles/en-GB/biodiversity/BS-42020-Smart-Guide.pdf>
- CIEEM (2016) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester. http://www.cieem.net/data/files/Publications/EcIA_Guidelines_Terrestrial_Freshwater_and_Coastal_Jan_2016.pdf
- CIEEM (2013) Guidelines for Preliminary Ecological Appraisal Institute of Ecology and Environmental Management http://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/GPEA/GPEA_April_2013.pdf
- Collins, J. (ed.) (2012). Bat Surveys for Professional Ecologists — Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London. <http://www.bats.org.uk/pages/batsurveyguide.html>
- Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected?
- Google Earth (2019).
- HMSO: Wildlife and Countryside Act 1981 (as amended) <http://jncc.defra.gov.uk/page-1377>
- HMSO: Countryside & Rights of Way Act (2000) <http://jncc.defra.gov.uk/page-1378>
- HMSO: Natural Environmental and Rural Communities Act (2006) <http://www.legislation.gov.uk/ukpga/2006/16/contents>
- HMSO: The Conservation of Habitats and Species Regulations (2010) <http://www.legislation.gov.uk/uksi/2010/490/contents/made>
- JNCC (2004) Bat Workers Manual, 3rd Edition. <http://jncc.defra.gov.uk/page-2861>
- Magic database (2019) <http://www.magic.gov.uk/MagicMap.aspx>
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough. http://roost.bats.org.uk/sites/default/files/publications/EnglishNature_BatMitigationGuidelines_2004.pdf
- National Planning Policy Framework, 2012 <https://www.gov.uk/government/publications/national-planning-policy-framework--2>
- Natural England (2007). Badgers and Development a Guide to Best Practice and Licensing. Natural England. Bristol. <http://www.wildlifeco.co.uk/wp-content/uploads/2014/03/badgers-and-development.pdf>
- Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000) Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). Herpetological Journal 10(4), 143-155. https://www.waterways.org.uk/wrg/wrg_documents/gcn_hsi
- Paul Edgar, Jim Foster and John Baker (2010). Reptile Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth <http://downloads.gigl.org.uk/website/Reptile%20Habitat%20Management%20Handbook.pdf>

- Tom Langton, Catherine Beckett and Jim Foster (2001). Great Crested Newt Conservation Handbook. Froglife. Suffolk. http://www.froglife.org/wp-content/uploads/2013/06/GCN-Conservation-Handbook_compressed.pdf
- <https://wildseed.co.uk/page/management-of-meadows-and-grassland>
- Natural England Technical Information Note TIN013 - Traditional orchards: site and tree selection
- Natural England Technical Information Note TIN014 - Traditional orchards: planting and establishing fruit trees
<https://www.wildcare.co.uk> for photos of habitat boxes

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 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 will 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 will 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 plants listed on Schedule 5 of the Conservation of 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 will 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.