



Ecological Mitigation and Enhancement Plan

Shirehampton Football Club, Penpole Lane, Shirehampton, Bristol, BS11 0EA

Matt McCall

Status	Issue	Name	Date
Draft	1	Jonathan Stuttard BSc (Hons) MSc Principal Ecologist	26/03/2024
Final	1.1	Jonathan Stuttard BSc (Hons) MSc Principal Ecologist	27/03/2024

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Guidelines

This assessment has been designed to meet:

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

Proportionality

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

This approach is enshrined in Government planning guidance, for example, paragraph 185 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 Limited were commissioned by Matt McCall to produce an Ecological Mitigation and Enhancement Plan (EMEP) for the proposed development at Shirehampton Football Club, Penpole Road, Shirehampton, Bristol, BS11 0EA (hereafter referred to as the site). The site has been subject to previous ecological assessment of relevance to this EMEP, comprising a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) (Arbtech Consulting Ltd. 2021).

1.2 Project Description

The planning application pertaining to the site (Bristol City Council ref: 21/03673/F) describes the proposed development as: *Erection of 5no. floodlighting columns, 50-seater stand, and replacement of existing canopy* (hereafter referred to as “the proposed development”). A proposed development plan is provided in **Appendix 1**.

1.3 Site Context

The site is located at National Grid Reference ST 53709 77152 and has an area of approximately 1.35ha. The site is characterised by a managed sports field providing a football pitch with two small stands and an adjacent cricket ground alongside an associated pavilion. Habitats recorded at the site include buildings, amenity grassland, scattered trees, ephemeral/ short perennial vegetation, hardstanding and fence. The site is enclosed by woodland to the west and north, a commercial warehouse to the east, and Penpole Lane to the south. A site location plan is provided in **Appendix 2**.

1.4 Scope of This Report

Following the submission of planning application 21/03673/F, planning permission was conditionally granted. Of relevance to this report, planning conditions 3 and 4 state:

Condition 3:

“Prior to the commencement of the development hereby approved, an Ecological Mitigation & Enhancement Strategy (EMES) shall be submitted to an approved in writing by the Local Planning Authority. This shall be prepared by a suitably qualified ecologist and should include details of the provision of living roofs/walls and bird, bat, insect and hedgehog boxes. The location, specification, height, and orientation of these features should be shown on a site plan.”

Condition 4:

“Prior to commencement of the development hereby approved a Method Statement prepared by a suitably qualified ecological consultant or landscape architect shall be submitted to an approved in writing by the Local Planning Authority for the creation of living roofs and/or walls within the site. All details shall be shown on a scale plan of the site.”

The aims of this EMEP are to provide the definitive mitigation prescriptions required during construction to ensure the protection of existing ecological receptors as identified through the PEA. Furthermore, the EMEP provides habitat creation and species-specific enhancement prescriptions to ensure the prolonged value of the site to biodiversity is maintained post-development. As a result, this LEMP aims to provide information in support of the discharge of planning conditions 3 & 4.

2.0 Ecological Baseline Conditions Relevant to This Report

The baseline ecological conditions of relevance to this report were determined as a result of the PEA PRA (Arbtech Consulting Ltd. 2021).

2.1 Habitats Recorded on Site and Identified Ecological Receptors

The site is characterised by a managed sports field providing a football pitch with two small stands and an adjacent cricket ground alongside an associated pavilion. Habitats recorded at the site include buildings, amenity grassland, scattered trees, ephemeral/ short perennial vegetation, hardstanding and fence. The site is enclosed by woodland to the west and north, a commercial warehouse to the east, and Penpole Lane to the south. Given the type and extent of habitats recorded and the assessed connectivity between the site and the wider landscape, the following ecological receptors were identified:

- Designated sites in the form of Penpole Wood and Quarry Site of Nature Conservation Importance (SNCI);
- Protected and/ notable habitats in the form of adjacent Lowland Mixed Deciduous Woodland Habitat of Principal Importance (S41; See **Appendix 5**).
- Bats;
- Badgers;
- Common species of nesting birds; and
- Hedgehogs.

The site is not considered suitable to support any other protected and/or notable species or habitats. For full details of the protected species appraisal, please refer to the PEA PRA report.

2.2 Scope for Mitigation and Enhancement

Although the PEA PRA did not identify any significant ecological constraints on the proposed development and no further surveys were recommended, there remains scope for protected and/ or notable species to be present for transient periods on or directly adjacent to the site during development works. Most notably, the presence of foraging and commuting bats, badgers, nesting birds, and hedgehogs cannot be discounted during development activity. Furthermore, a section of woodland, which is representative of the Lowland Mixed Deciduous Woodland Habitat of Principal Importance and is subject to a non-statutory designation (SNCI) is located directly adjacent to the north and west. Whilst no direct impacts to these ecological receptors are anticipated, there is potential for indirect impacts to occur through disturbance during development works and during the operation phase. Furthermore, there is good scope to enhance the site for biodiversity through habitat creation targeting species groups with connectivity to the site.

3.0 Ecological Mitigation and Enhancement Plan

3.1 Mitigation

Mitigation prescriptions to reduce adverse impacts to existing ecological features and biodiversity as identified through previous ecological assessment are detailed in **Table 1** below.

Table 1: Mitigation Prescriptions

Mitigation	Specification
<p>Persons Responsible and Lines of Communication</p>	<p>A Development Biodiversity Champion will be selected for the construction phase of the development. The Development Biodiversity Champion will be someone with significant influence during construction such as the project or site manager. The Development Biodiversity Champion will be responsible for ensuring all actions outlined in this EMEP are implemented. Any queries with regards to the mitigation and enhancement prescriptions will be addressed to the project ecologist and communication will be retained between the Development Biodiversity Champion and project ecologist throughout the project. The project ecologist’s contact details are located on the title page of this report. The Biodiversity Champion will inform the project ecologist of the commencement of enhancement installation works and provide updates where necessary.</p> <p>Once the ecological enhancements have been installed, a Post-Development Biodiversity Champion will be allocated who has influence on site once the development is complete, such as the landowner or long-term maintenance contractor. The Post-Development Biodiversity Champion will be responsible for ensuring all recommended management is undertaken and any associated remedial measures are completed where necessary.</p>
<p>Protection of Terrestrial Mammals During Development Activity</p>	<p>Although no evidence indicating the presence of badgers or hedgehogs was recorded through the PEA, the site remains well connected to the wider landscape for these species via adjacent woodland and their future presence on site for transient periods whilst foraging and commuting cannot be discounted. Development works could therefore cause death or injury to these species if present. The following precautionary working methods will therefore be adhered to during construction:</p> <ul style="list-style-type: none"> The installation of the proposed lighting columns and construction of the new stand will require deep excavations to construct secure foundations. Badgers and hedgehogs could become trapped in deep excavations when foraging and commuting during the night. As such, any excavations undertaken to facilitate the proposed development will be covered overnight, or a ramp will be installed to enable any trapped animals to escape such as a rough sawn piece of timber long enough to reach ground level from the base of the excavation.

- Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations to prevent ground contamination of adjacent foraging resources.

Wildlife Sensitive Lighting Strategy

Due to the nature of the proposed development, which comprises the installation of flood lighting to illuminate a football pitch, it is not possible to wholly comply with sensitive lighting guidance pertaining to wildlife such as those prescriptions detailed within Guidance Note 08/23 Bats and Artificial Lighting at Night (ILP & BCT 2023). Most notably, the flood lights will need to comply with Football Association minimum illuminance requirements to ensure participant safety, which supersedes recommended sensitive lux levels to reduce impacts to wildlife. However, it is assessed that the proposed lighting scheme mitigates impacts of artificial lighting on light sensitive species potentially utilising habitats on and directly adjacent to the site insofar as is possible through the provision of rear shields to prevent upwards illuminance (**Figure 1**) and the implementation of a strict timetable, which will limit usage of the floodlights during period when wildlife are most sensitive, i.e. during night time hours throughout the most active season between April and September inclusive. Specifically, the floodlights will not be used during the club’s off-season in May, June, and July and will only be used for a maximum period of 6.5 hours per week over three evenings between 18.00 and 22.00 during the season (Scale Design and Planning 2021).

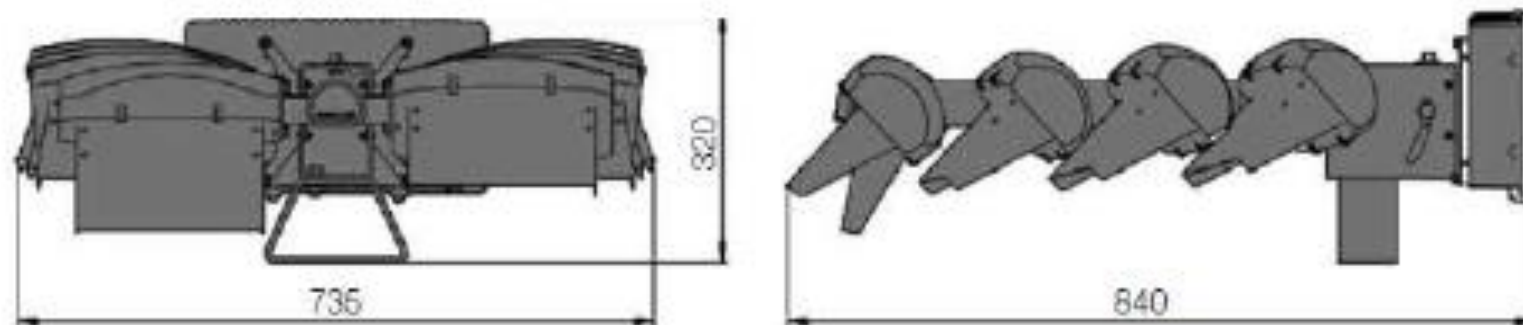


Figure 1: Proposed Floodlight Dimensions and shielding Layout (Abacus Lighting 2021).

Considering these efforts to limit the impacts of artificial lighting insofar as is possible whilst maintaining the primary function of the lighting is considered to represent a suitable level of mitigation proportionate to the ecological value of the site and thus no significant impacts resulting from artificial lighting are anticipated on the adjacent woodland and SNCI, foraging and commuting bats, hedgehogs, or badgers. This EMEP expects strict adherence with the proposed lighting mitigation.

3.2 Enhancement

Enhancement of the site and subsequent management prescriptions to ensure the ongoing biodiversity value of the site post-construction are detailed in **Table 2** below and illustrated on the plans provided in **Appendices 3 & 4**.

Table 2: Enhancement Prescriptions

Enhancement Prescription	Specification
<p>Green Wall Creation and Provision of Invertebrate Boxes</p>	<p>Overview: The creation of a green wall is proposed on the rear wall of the new 50-seater stand, as shown on the plan in Appendix 3. The green wall will be created utilising a ground-based planting bed and native woodland climbing plants of local provenance to replicate and add to opportunities associated with nectar producing climbing plants present in the adjacent woodland/ SNCI. Invertebrate boxes will be installed onto the green wall, whereby they will become enclosed by vegetation and provide elevated refuge opportunities for invertebrates increasing the ecological value of the feature.</p> <p>Objectives:</p> <ul style="list-style-type: none"> • To create a healthy and densely vegetated green wall that includes invertebrate boxes. • To provide pollinating, foraging, and refuge opportunities for protected and/ or notable species groups including bats, birds, invertebrates. • To plant three native species of local provenance that will be nectar producing. • Ensure that good horticultural practice is employed to encourage long-term health and vitality of all climbing plants. • Ensure well-balanced crowns and/ or natural shape by preventing over competition. <p>Creation Method:</p> <ul style="list-style-type: none"> • Ground preparation and planting A ground-level planting bed utilising the existing soil will be created at the base of the rear wall (west aspect) of the 50-seater stand along the entire length of the wall, with a width of 30cm. A galvanised metal trellis utilising pre-made gridded panels will then be fixed to the rear wall above the planting bed to ensure a good vegetation coverage. Each new climbing plant will then be planted within a hole three times as wide as the supplied pot and of a similar depth. Root balls will be loosened to exposed restricted roots and oaked thoroughly in water before planting. The planted shrubs should then be backfilled ensuring there are no air pockets around roots or any roots protruding out of the ground.

- **Timing**

Planting will be undertaken between November and March. Planting shrubs before the new year helps ensure better rooting and subsequent establishment including faster growth during the first growing season the following Spring and Summer.

- **Plant Sourcing and Density**

Plants must be sourced from a local supplier and be of local provenance. It is recommended that new shrubs are planted every 30cm along the wall length, comprising an even number of the following three climbing species:

Honey suckle *Lonicera periclymenum*

Hops *Humulus lupulus*

Old man's beard *Clematis vitalba*

Long-term Management Prescriptions:

Table 2.1: Green Wall Management Prescriptions

Management	When	Rationale
At the end of each growing season all plant failures are to be 100% replaced	When required; checked annually in Autumn.	To maintain amenity and wildlife value.
If required, provision of stakes and guards. Guards to be left on for a minimum of 2 years	Immediately after planting.	Protect from damage
Stakes should be checked and any broken or damaged stakes during this time would be removed (as above) and replaced with ties re-fixed	When required; checked annually in Autumn.	Maintain protection
Remove weeds	When required; checked twice annually in early spring and in Autumn.	Reduce competition for resources nutrients etc.by weeds
Application of bark mulch at a depth of 50 mm	Immediately after planting and then when required; checked annually in Autumn.	Reduce competition for resources nutrients etc.by weeds
Do not apply chemical fertilisers	At all times.	The use of chemical fertilisers will

		encourage vigorous grasses and weeds to grow
Removal of spent flowers from perennial plants should be removed through 'deadheading'	Twice annually, late spring and in the Autumn.	Allows plants to place more energy into re-growth.
Watering should be undertaken before and after planting out and as necessary for the continued thriving of all planting.	When required; provide more water during periods of draught and less water during times of prolonged rain.	Ensures plants do not dry out and subsequently fail.

Invertebrate box installation:

Two invertebrate boxes will be installed onto the green wall to enhance refuge opportunities at the site for invertebrates. The proposed locations are shown on the plan provided in **Appendix 3**. Two NHBS Bug Boxes will be installed (or similar alternative), as shown on **Figure 2**. The invertebrate boxes can be found here: <https://www.nhbs.com/>.



Figure 2: A suitable invertebrate box for green wall installation (photo credit: <https://www.nhbs.com/>).

Provision of bat boxes

Two bat boxes will be installed onto mature trees located adjacent to the south site boundary. The bat box installation locations are shown on the plan in **Appendix 4**. Details of the bat boxes to be installed are as follows:

- The recommended bat boxes will be constructed of woodcrete/ woodstone. Boxes of this construction are known to require minimal maintenance and have a lifespan of 25 years plus.
- Greenwood's Eco habitats bat boxes will be utilised (<https://www.greenwoodsecohabitats.co.uk/shop>).
- 1No. Single Crevice Bat Box and 1no. Medium Hollow Bat Box will be installed (or similar specification), as shown in **Figure 3**. These bat box types are suitable to support a wide range of species including brown long-eared *Plecotus auritis*, noctules *Nyctalus noctula* and soprano pipistrelles *Pipistrellus pygmaeus*. These species are likely to be present in the local area and represent Species of Principal Importance as listed on Schedule 41 of the NERC Act (see **Appendix 5**).
- The bat boxes will be positioned 3-5m above ground level facing a south elevation with a clear flight path to and from the entrance, away from artificial light and facing vegetated habitats.



Figure 3: The single crevice bat box and medium hollow bat box (image credit: <https://www.greenwoodsecohabitats.co.uk/>).

	<p>Recommended management:</p> <p>The proposed bat boxes are designed to require no management or maintenance. Furthermore, preventing physical disturbance of bat boxes will increase the chances of occupation by roosting bats. However, it is recommended that the bat boxes are inspected annually for the first five years outside of the typical active season for bats (May to September inclusive) following installation. Bat boxes must be replaced if they are damaged, removed, or have fallen from their recommended location.</p>
<p>Provision of bird boxes</p>	<p>Two bird boxes will be installed onto mature trees located adjacent to the south site boundary. The bird box installation locations are shown on the plan in Appendix 4. Details of the bird boxes to be installed are as follows:</p> <ul style="list-style-type: none"> • The recommended bird boxes will be constructed of woodcrete/ woodstone. Boxes of this construction are known to have minimal maintenance and have a lifespan of 25 years plus. • 1No. Vivara Pro Seville 32mm nest box and 1No. Vivara Pro Barcelona Woodstone Open Nest Boxes will be installed (or similar specification), as shown in Figure 4. These bird box types are suitable to support a wide range of species including house sparrows <i>Passer domesticus</i>, which represent Species of Principal Importance as listed on Schedule 41 of the NERC Act (see Appendix 5). • The bird boxes will be positioned approximately 3-5m above ground level facing a northern elevation where they will be sheltered from prevailing wind, rain and strong sunlight. <div data-bbox="920 804 1637 1283" style="text-align: center;"> <p>The image shows two bird boxes side-by-side. Both have a dark brown, textured, house-shaped top. The box on the left is the Vivara Pro Seville 32mm, featuring a white plastic insert with a circular entrance hole. The box on the right is the Vivara Pro Barcelona Woodstone Open Nest Box, featuring a white plastic insert with two small circular holes. Both boxes have the brand name 'VIVARA' embossed on the bottom of the white insert.</p> </div> <p>Figure 4: The Vivara Pro Seville 32mm and Barcelona Woodstone Open (image credit: https://www.nhbs.com/).</p>

	<p>Recommended Management:</p> <p>The proposed bird boxes are designed to require no management or maintenance. Furthermore, preventing physical disturbance of bird boxes will increase the chances of occupation by nesting birds. However, it is recommended that the bird boxes are inspected annually for the first five years outside of the typical nesting bird season (March to September inclusive) following installation. Bird boxes must be replaced if they are damaged, removed, or have fallen from their recommended location.</p>
<p>Hedgehog Enhancements</p>	<p>A single hedgehog house will be installed at the woodland edge in the northeast corner of the site to enhance refuge and over-wintering opportunities at the site for hedgehogs. The proposed location is shown on the plan provided in Appendix 4. A NHBS hedgehog house will be installed (or similar alternative), as shown on Figure 5. The hedgehog house can be found here: https://www.nhbs.com/.</p> <div data-bbox="864 555 1675 1106" data-label="Image"> </div> <p>Figure 5: The hedgehog house proposed for the site (Photo credit: https://www.nhbs.com/hedgehog-house).</p> <p>Management:</p> <p>The proposed hedgehog house is designed to require no management or maintenance. Furthermore, preventing physical disturbance of the hedgehog house will increase the chances of occupation by hedgehogs. However, it is recommended that the hedgehog house is inspected annually for the first five years following installation. Should the hedgehog be significantly damaged, it must be replaced.</p>

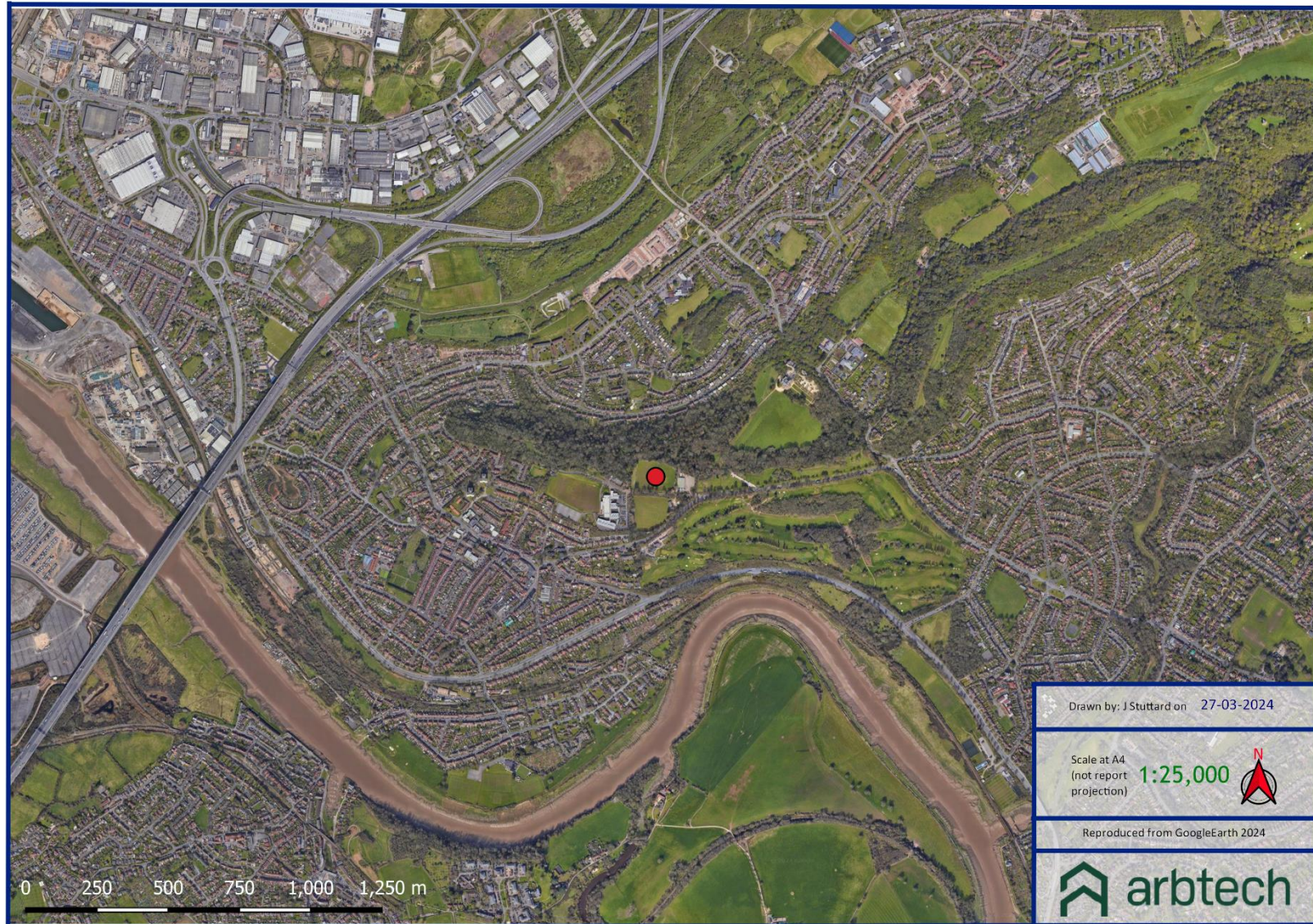
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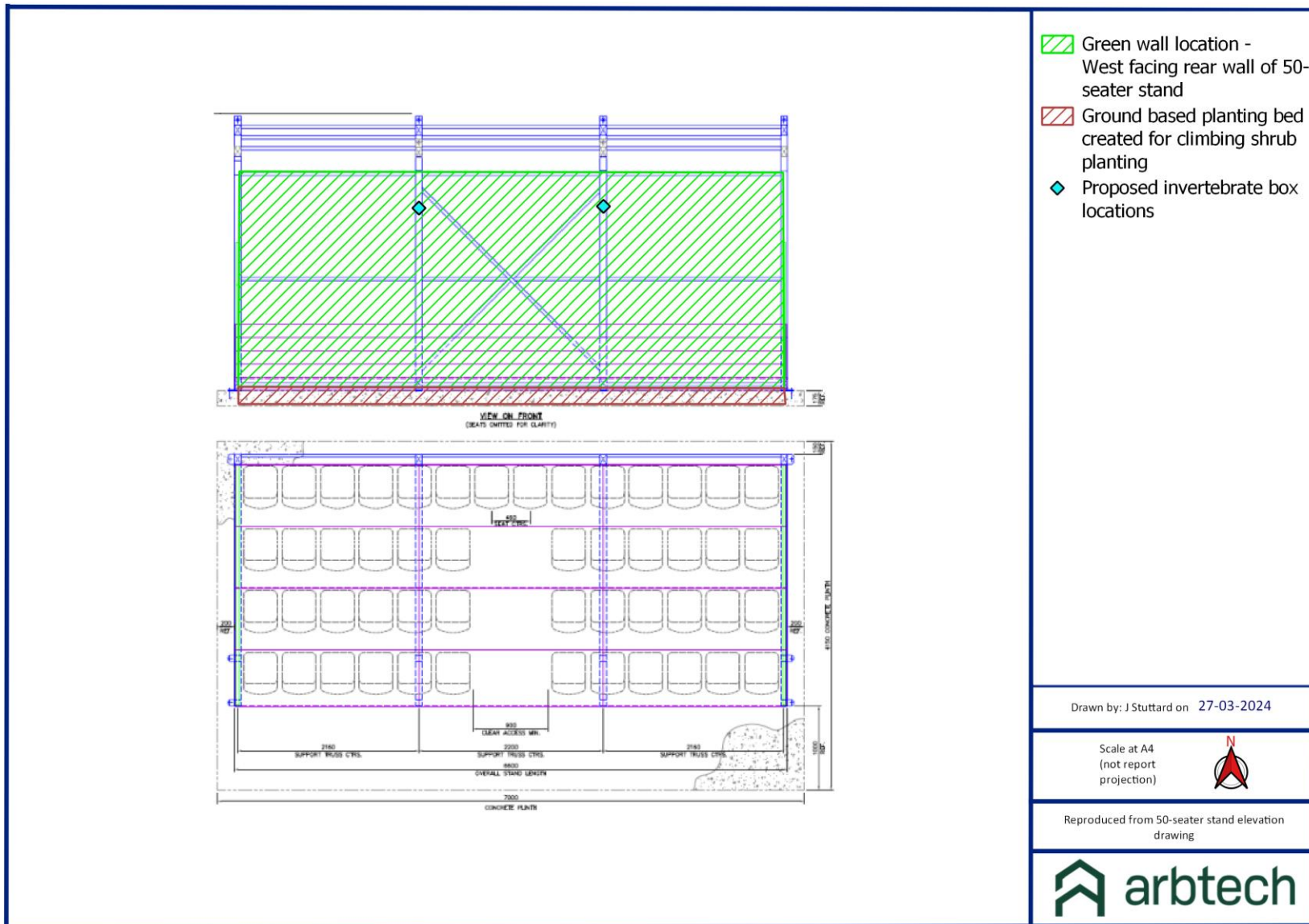
Appendix 1: Proposed Development Plan



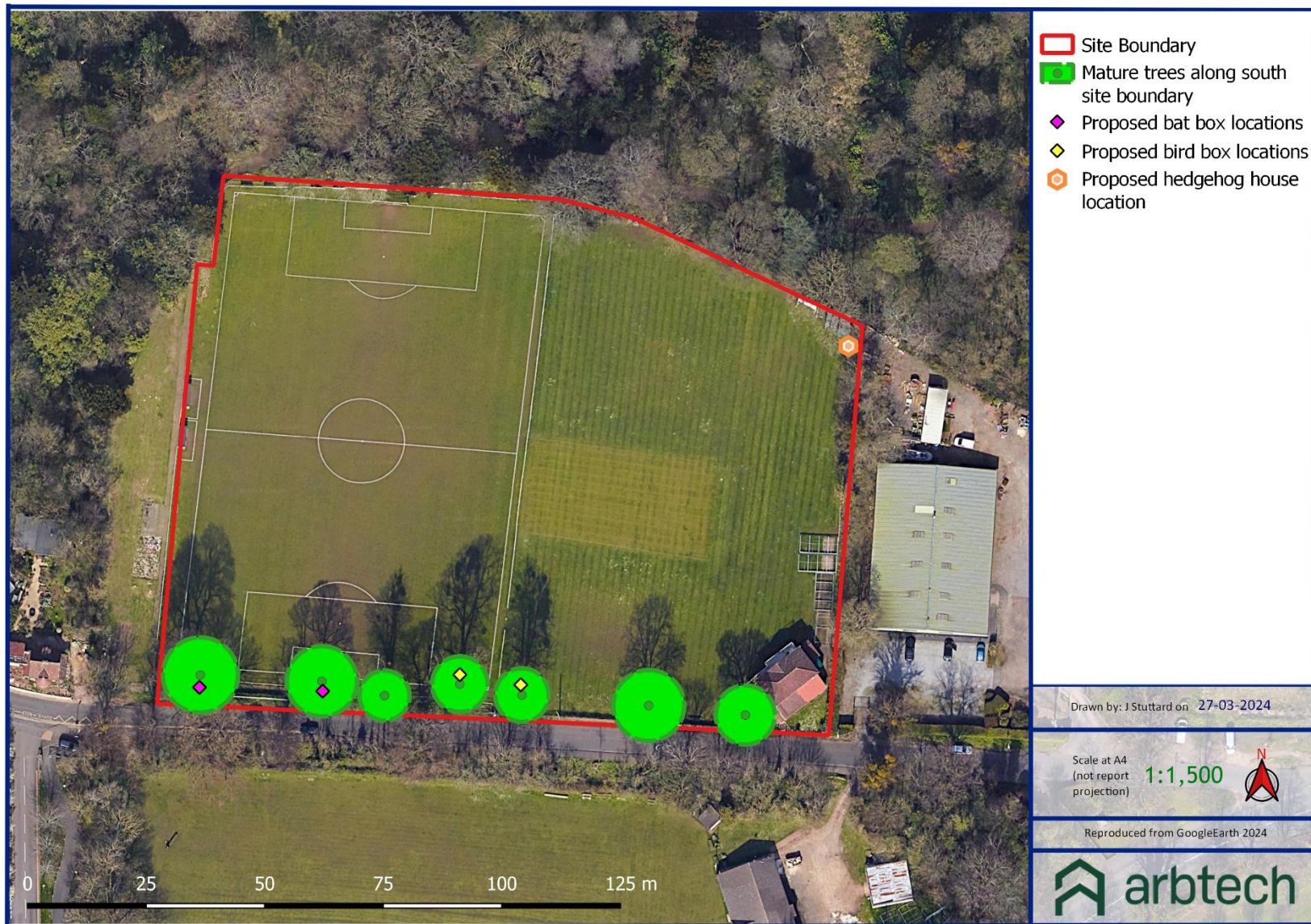
Appendix 2: Site Location Plan



Appendix 3: Green Wall and Invertebrate Box Location Plan



Appendix 4: Bat Box, Bird Box, and Hedgehog House Location Plan



Appendix 5: Legislation and Planning Policy

LEGAL PROTECTION

National and European Legislation Afforded to Habitats

International Statutory Designations

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

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

SPAs are classified under Article 2 of the EC Birds Directive both for rare bird species (as listed on Annex I) and for important migratory species.

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

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

National Statutory Designations

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

and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and the Nature Conservation (Scotland) Act 2004.

Local Statutory Designations

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

Non- Statutory Designations

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

The Hedgerow Regulations 1997

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

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

National and European Legislation Afforded to Species

The Habitats Directive

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

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

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

In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three 'tests':

the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment;

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

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

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CRoW) Act (2000) and Nature Conservation (Scotland) Act 2004.

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

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

Badgers

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

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

Effects on development works:

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

Birds

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

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

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

This affords them protection against:

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

Effects on development works:

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

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

Herpetofauna (Amphibians and reptiles)

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

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

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

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

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

- Intentionally or recklessly kill or injure these species.

Effects on development works:

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for 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 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 should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

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

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

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

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by Natural England will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored. The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

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

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

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

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

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

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

EUROPEAN PROTECTED SPECIES POLICIES

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

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

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