

Habitat Management and Monitoring Plan (Biodiversity Net Gain)

Survey site:

32-36 Bournemouth Road, Chandler's Ford, Eastleigh, SO53 3ZL

Client:

Portakabin Ltd.

Report date:

6th November 2025

Project:

This report has been produced to support a planning application with Eastleigh Borough Council. The proposal is described as: '*demolition of an existing office building and replacement with associated landscaping.*'

Status	Issue	Name	Date
Final	1	Laurence Wills ACIEEM, BSc (Hons), Senior Ecologist	06/11/2025

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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 174 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 Portakabin Ltd. to produce a Habitat Management and Monitoring Plan (BNG) for the development at 32-36 Bournemouth Road, Chandler's Ford, Eastleigh, SO53 3ZL (hereafter referred to as the site).

The site has been subject to the following previous ecological assessment of relevance to this report:

- 1297-MP-01 2025-10-08 (Indigo Landscape Architects Ltd, 2025).
- BNG - 32-36 Bournemouth Road, SO53 3ZL- v2-42298523- 21.10.25 (Arbtech Consulting Ltd, 2025).

1.2 Project Description

The planning application for the site is described as the '*demolition of an existing office building and replacement with associated landscaping.*' A proposed development plan is provided in **Appendix A**.

1.3 Site Context

The site is located within an urban area of Chandlers Ford, Southampton (national grid reference: SU 43270 20364). The site comprises an office block and surrounding areas of hardstanding. Residential properties are located immediately to the south and east, with associated amenity gardens and scattered mature trees. Small pockets of woodland are situated further to the east, while industrial areas dominate the landscape to the north, west, and far south. Due to the surrounding urban infrastructure and limited on-site habitats, the local and wider environment is considered to hold low potential for supporting wildlife. A location plan is provided in **Appendix B**.

1.4 Scope of This Report

The aims of this HMMP (BNG) are to provide ecological enhancement and management prescriptions to ensure the anticipated BNG is achieved in accordance with previous ecological assessments undertaken at the site. Specifically, this report aims to provide definitive detail with regards to a 30-year management plan to ensure the effective installation and long-term success of proposed habitat creation within the site and offsite land. As such, this report aims to provide sufficient detail to support the discharge of the recommended planning condition, as well as provide sufficient information to secure the long-term management requirements of the habitats on site

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 Preliminary Ecological Assessment and BNG Assessment.

2.1 Habitats Recorded on Site and Value to Protected and/ or Notable Species

The site exclusively comprises urban hardstanding, comprising a car park and drive in access, as well as an office building.

2.2 BNG and Proposed Habitat Creation

Proposals for the site comprise the development of the existing hardstanding and office building and the creation of a new office building, car parking space, and associated amenity areas and landscaping. Proposed habitats can be seen on the plans at **Appendix C**. Proposed habitat creation and target conditions to be achieved during the 30-year management term are detailed below:

Onsite

Created

- **Mixed scrub** – 0.0098 ha, moderate condition 0.07 units
- **Introduced shrub** – 0.0634 ha, (condition N/A) 0.12 units
- **Individual trees** – 0.0489 ha, poor condition 0.14 units
- **Facade-bound green wall** – 0.033 km, good condition 0.11 units
- **Non-native and ornamental hedgerow** – 0.143 km, poor condition 0.14 units

2.3 Scope for Mitigation and Management

Habitat creation

Through the proposed delivery of habitats detailed above, the development will generate **0.44 area-based habitat units and 0.14 linear-based habitat units**. A minimum 10% net gain for area-based habitat units has been achieved, and therefore the proposed development is considered to be compliant with the current legislation (Environment Act 2021).

Section 3 of this report details specific creation / installation and management measures to ensure that the proposed new landscaping is appropriately created / maintained and species-specific enhancement measures are secured for the 30-year management term. Where conditions are applicable to proposed habitats, details on compliance with BNG condition criteria are provided.

3.0 Biodiversity Net Gain Management Plan

3.1 Persons Responsible

Persons responsible, lines of communication, and remediation implementation detail is provided below in **Table 1**.

Table 1: Persons responsible, lines of communication, and remediation

Mitigation	Specification
Persons Responsible and Lines of Communication	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/habitat creation, such as the contract/project manager or landowner. The Development Biodiversity Champion will be responsible for ensuring all actions outlined in this document 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 Development Biodiversity Champion will inform the project ecologist of the commencement of enhancement installation works and provide updates where necessary. Once the ecological enhancements have been installed/created, a Post-Development Biodiversity Champion will be allocated who has influence on site once the development is complete, such as a long-term maintenance contractor or landowner. The Post-Development Biodiversity Champion will be responsible for ensuring all recommended management is undertaken and that any associated remedial measures are completed where necessary.
Post-Development Site Visits	A post-development site visit by a Suitably Qualified Ecologist (SQE) will be undertaken to confirm the successful installation/creation of the biodiversity enhancements no more than one year following installation/creation. A report will be produced by the SQE detailing the results of the site visit and any remediation requirements. Where remediation is necessary, i.e. if the biodiversity enhancements have not been installed to a satisfactory standard, further evidence will need to be provided proving implementation. Depending on the scale of the remediation requirements, this will require an additional site visit by an SQE or photographic evidence to be provided by the Post-Development Biodiversity Champion. This requirement will be defined based on the results of the first site visit by the SQE.

	Ongoing assessment of the habitat creation and management measures will be undertaken, whereby the site and offsite will both be subject to an inspection by a SQE at years 2, 5, 10, 20 and 30. The inspections should be undertaken during the optimal botanical survey window (May - August) to provide the best assessment of habitat types and conditions. A report will be produced by the SQE after every inspection, detailing the results of the survey and any remediation requirements necessary. Each report will be submitted to the responsible body for monitoring BNG deliverance, which will likely be the LPA. The Post-Development Biodiversity Champion will be responsible for ensuring that the site is inspected by a SQE at the appropriate timings set out above and will also be responsible for implementing any remediation measures identified by the SQE.
Legal Responsibility	It is expected that compliance with this HMMP (BNG) will be legally enforced through a planning condition or Section (s) 106 agreement. As part of this legal agreement, habitat creation and management detailed within this HMMP (BNG) will need to be retained and appropriately managed for the entire 30-year term to meet legislative objectives outlined in the Environment Act (2021). Should any future development at the site be proposed that will impact habitats that deliver the required gain as part of the planning condition/s106 agreement, this will need to be considered and suitably compensated for in accordance with any future plans.

3.2 Habitat Creation and Management

Best practice habitat creation and management within the site over a 30-year term to ensure a BNG consistent with that reported within the BNG Assessment is provided in **Table 3** below.

Table 3: Habitat Creation and Management Prescriptions

Ecological receptor	Specification
Waste Disposal and Materials Storage	A secure area for waste storage should be proposed on site within areas of hardstanding or buildings. Storage of waste in such areas will not impact any retained or newly created habitats during the operational phase. All future materials storage will be over areas of hardstanding located within the east of the site. No materials will be stored over areas of soft landscaping at any time.
Mixed scrub (moderate condition)	Overview: To create areas of the native mixed scrub along the southern and southwest section of the site, as shown in Appendix C .

	Objectives: • Maintain and enhance a structurally diverse scrub habitat composed of native species to support a wide range of wildlife. • Encourage natural regeneration and successional processes to sustain a mosaic of age classes within the scrub. • Prevent encroachment by invasive or non-native species to retain the native character and ecological value of the habitat. • Ensure the scrub remains dense and well-connected while preventing excessive spread into adjacent habitats. • Minimize disturbance and avoid the use of chemical treatments to protect soil health and natural ecological balance. Creation Method: <u>Ground Preparation</u> • Remove existing non-native vegetation and debris to expose bare ground where necessary. • Lightly cultivate or scarify the soil to promote good root establishment while retaining some natural seedbank. • Avoid the use of chemical herbicides or fertilizers to maintain soil integrity and support natural colonisation. <u>Planting Method</u> • Plant during the dormant season (November–March) when soil conditions allow. • Use a mix of native bare-root or cell-grown stock, ideally of local provenance. • Space plants approximately 1–1.5 m apart in a random, naturalistic pattern to create structural diversity. • Protect young plants from grazing using guards or temporary fencing where necessary. • Apply a light mulch around each plant to suppress weeds and retain moisture. <u>Species Composition</u> • At least 80% of scrub species must be native. • Include a minimum of three native woody species to ensure diversity. • No single species should comprise more than 75% of total cover, except for: ○ Hazel (<i>Corylus avellana</i>)
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- Common juniper (*Juniperus communis*)
- Sea buckthorn (*Hippophae rhamnoides*) — only within its restricted native range
- Box (*Buxus sempervirens*)

Management prescriptions covering a 30-year term:

Table 3.2: Bramble scrub management prescriptions.

Management	When	Rationale	BNG Condition Criteria Compliance
Monitor scrub composition and structure	Annually (late winter, January–March)	Ensures that seedlings, saplings, young shrubs, and mature shrubs are all present, maintaining a mixed-age structure for long-term stability.	A, B
Undertake selective cutting or coppicing on rotation	Every 5–10 years in late winter (January–March)	Encourages regeneration, maintains structural diversity, and prevents the scrub from maturing uniformly or transitioning into woodland.	B, C
Maintain a well-developed scrub edge	Review and manage every 3 years (late winter, January–March)	Promotes a gradual transition between scrub and adjacent habitats with scattered scrub, tall grassland, and forbs.	D
Prevent excessive encroachment into adjacent habitats	Every 3–5 years (late winter, January–March)	Retains scrub within defined boundaries and prevents shading or displacement of nearby habitats such as grassland.	D, E
Monitor and remove invasive non-native species	Annually during growing season (April–October)	Prevents non-native species from outcompeting native shrubs and altering the habitat	C

			composition.	
	Encourage natural regeneration	At all times	Allows seedlings and saplings to establish naturally, maintaining a continuous age range of shrubs.	B
	Avoid chemical treatments or soil enrichment	At all times	Preserves native soil conditions and prevents nutrient enrichment that could favour competitive species.	A
	Control dominance of single shrub species	Every 5 years (late winter, January–March)	Ensures no one species exceeds 75% cover, maintaining diversity and resilience within the scrub community.	A
	Monitor scrub boundaries and condition	Annually (any time)	Detects early signs of decline, gaps, or overgrowth, allowing for timely, minimal intervention to retain the habitat's current quality.	D
Introduced shrubs (condition N/A)	Overview Areas of introduced shrub will be created across the site, as shown on the plan in Appendix C.			
	Objectives - Establish and maintain visually attractive shrub planting areas to enhance site aesthetics and landscape character. - Ensure ornamental shrub beds remain healthy, well-structured, and free from weeds or invasive species. - Maintain a tidy and managed appearance through appropriate pruning, mulching, and seasonal care. - Replace any failed plants promptly to retain continuous cover and design intent. - Minimize the use of chemical treatments, using sustainable management practices wherever possible.			

Management prescriptions covering a 30-year term**Table 3.3:** Modified grassland management prescriptions.

Management	Detail	Rationale	BNG condition criteria compliance
Weed shrub beds manually or mechanically	Monthly during growing season (April–October)	Maintains a tidy appearance and reduces competition for nutrients and water.	N/A
Prune shrubs to maintain shape and size	Annually in late winter or after flowering, depending on species	Encourages healthy growth and keeps planting neat and within design limits.	N/A
Apply mulch around shrub bases	Annually in spring (March–April)	Suppresses weeds, retains soil moisture, and improves presentation.	N/A
Water during prolonged dry periods	As required during dry spells (April–September)	Prevents stress and maintains plant health during dry conditions.	N/A
Avoid use of chemical fertilizers or herbicides unless essential	At all times	Prevents damage to ornamental plants and reduces environmental impact.	N/A

Individual trees (poor Condition)	Overview 12 individual trees will be planted on site, as presented in Appendix C. Objectives • To create individual trees in 'poor' condition in accordance with the BNG Assessment; • To create mature trees that will provide habitat for nesting birds and contribute to commuting corridors within the canopy layer of the environment. • Employ techniques that use organic fertilisers and minimise the use of chemicals wherever possible. Creation Method <u>Ground preparation</u> • Excavate a planting pit at least 1.5 meters wide and 1 meter deep. The pit should be backfilled with a mixture of the excavated soil and a high-quality organic compost (30:70 ratio). This ensures the tree has a nutrient-rich substrate. • If the site is prone to waterlogging, install a layer of gravel (5-10 cm) at the base of the pit to improve drainage. <u>Tree planting</u> • Tree species, suited to the local ecosystem and climate, are to be planted. All trees must be of British-grown stock to reduce the risk of introducing pests and diseases and to ensure compatibility with local conditions. • The selected trees must be >7.5cm in diameter at breast height when planted. • Planting should take place between November and March to coincide with the dormant season, reducing transplant shock and water stress. • Position the tree upright in the centre of the pit, ensuring that the root collar is level with the surrounding ground. Avoid planting too deep or too shallow, as this can affect root development. • Use at least two sturdy tree stakes positioned diagonally opposite and secured with flexible ties to stabilize the tree against wind. Ensure the ties allow for some movement to promote trunk strengthening.
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- Apply a 5-10 cm thick layer of organic mulch (e.g., wood chips) around the base of the tree, leaving a gap around the trunk to prevent rot. This will suppress weed growth and retain soil moisture.

Management prescriptions covering a 30-year term

Table 3.4: Individual tree management prescriptions.

Management	Detail	Rationale	BNG condition criteria compliance
Water newly planted trees during dry spells	April–September (Years 1–3)	To ensure sufficient hydration for establishment and root development.	C
Inspect and adjust tree ties and stakes	Every 6 months (Years 1–3); remove in Year 3–5	To prevent girdling and ensure tree stability; remove once tree is self-supporting.	C
Weed and clear competing vegetation	Monthly during growing season (Years 1–5)	Reduces competition for nutrients and water, promoting healthy growth.	F
Apply mulch around the base	Annually in spring (Years 1–5)	Retains soil moisture, suppresses weeds, and provides slow-release nutrients.	B, C, D, E
Monitor for pests and diseases	Quarterly (Years 1–30)	Early detection and treatment prevent long-term damage or decline.	B, C, D
Inspect and manage tree health	Annually (Years 1–30)	Regular health checks ensure the tree matures without significant decline.	C
Avoid use of chemical fertilizers near trees	At all times	Prevents damage to roots and promotes a balanced natural growth cycle.	C, F

	Monitor canopy continuity	Every 5 years starting in Year 20	Ensures canopy remains unbroken and contributes to tree maturity.	B
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Facade-bound green wall (good condition)

Overview

Five sections of facade-bound green walls will be created on the proposed building on site, as presented in **Appendix C**.

Objectives

- Establish and maintain a healthy, fully vegetated green wall that enhances visual interest and contributes to local biodiversity.
- Ensure consistent plant coverage with no significant bare patches or dieback.
- Maintain the irrigation and drainage systems to support sustained plant health and growth.
- Use a mix of native or pollinator-friendly species where possible to provide ecological value.
- Manage the wall safely and efficiently to retain a neat, attractive, and well-maintained appearance year-round.
- Minimise the use of chemical treatments, favouring sustainable and low-impact maintenance practices.

Creation Method

- Install structural framework and irrigation system according to manufacturer specifications.
- Use suitable growing medium or modular panels to support root development and drainage.
- Plant selected species (preferably hardy, drought-tolerant, and pollinator-friendly) at high density to ensure full coverage.

Management prescriptions covering a 30-year term

Table 3.4: Individual tree management prescriptions.

Management	Detail	Rationale	BNG condition criteria compliance
Monitor plant health and replace any dead or failing plants	Quarterly (spring, summer, autumn, winter)	Maintains full vegetative cover and prevents gaps in the wall structure.	A, B
Encourage flowering species	During growing	Prolongs flowering period and	B

	by selective pruning and deadheading	season (April–September)	provides continuous resources for pollinators and other invertebrates.	
	Apply mulch or feed (organic, if applicable)	Annually in early spring (March)	Supports plant nutrition and resilience without introducing artificial chemicals.	A, B
	Clean framework and drainage channels (no chemicals)	Annually in late winter (January–February)	Maintains system function and prevents buildup of debris or algae.	A
	Check irrigation schedule and adjust for seasonal conditions	Monthly during growing season (April–September)	Prevents over- or under-watering, ensuring healthy plant growth.	A
	Remove non-native or invasive species immediately upon detection	Ongoing, throughout the year	Prevents displacement of native or pollinator-friendly species and maintains intended ecological value.	C

Non-native hedgerow and ornamental hedgerow (condition N/A)

Overview

Non-native hedgerow and ornamental hedgerow will be planted on site, as presented in **Appendix C**.

Objectives

- Establish and maintain an attractive, well-structured hedgerow that complements the landscape design.
- Ensure consistent growth, density, and form through regular maintenance and pruning.
- Retain a tidy and managed appearance while preventing excessive spread beyond defined boundaries.

Creation Method

- Prepare ground by removing weeds, debris, and loosening soil along the planting line.
- Plant during dormant season (November–March) using healthy nursery stock of selected ornamental species.
- Space plants evenly (typically 30–50 cm apart) to achieve a continuous, formal appearance.
- Water thoroughly after planting and during dry periods to aid establishment.
- Apply mulch along the base to retain moisture and suppress weed growth.
- Replace any failed plants promptly to maintain uniformity and cover.

Management prescriptions covering a 30-year term

Table 3.4: Individual tree management prescriptions.

Management	Detail	Rationale	BNG condition criteria compliance
Trim hedgerow to maintain shape and size	Once or twice annually (late spring and/or early autumn)	Keeps a neat, formal appearance and encourages dense growth.	N/A
Weed base of hedgerow	Twice annually (spring and autumn)	Reduces competition for water and nutrients.	N/A
Water during prolonged dry	As required	Ensures plants remain healthy and	N/A

	periods	(April–September)	vigorous.	
	Replace any dead or damaged plants	Annually in dormant season (November–March)	Maintains continuous cover and uniformity.	N/A
	Apply mulch around base	Annually in spring (March–April)	Retains soil moisture and suppresses weed growth.	N/A
	Remove litter and debris	As needed, year-round	Keeps the hedgerow tidy and visually appealing	N/A
				N/A

4.0 Bibliography

- Arbtech Consulting. (2024). 32-36 Bournemouth Road, SO53 3ZL- v2-42298523- 21.10.25
- British Standards Institute. (1989). BS 4428, Code of Practice for General Landscape Operations. <https://www.bsigroup.com/>
- British Standards Institute. (2013). BS 42020, Biodiversity – Code of practice for planning and development. <https://www.bsigroup.com/>
- British Standards Institute. (2014). BS 5228-1, Code of Practice for Noise and Vibration Control on Construction Sites. <https://www.bsigroup.com/>
- British Standards Institute. (2015). BS 3882, British Standard Topsoil. <https://www.bsigroup.com/>
- CIEEM. (2024). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine (Version 1.3). Chartered Institute of Ecology and Environmental Management, Winchester. <https://cieem.net/wp-content/uploads/2018/08/EclA-Guidelines-v1.3-Sept-2024.pdf>
- CIEEM. (2018). Guidelines for Preliminary Ecological Appraisal (January 2018). Institute of Ecology and Environmental Management. <https://cieem.net/wp-content/uploads/2019/02/Guidelines-for-Preliminary-Ecological-Appraisal-Jan2018-1.pdf>
- 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>
- National Planning Policy Framework. (2023). <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

Appendix A: Proposed Development Plan



Appendix B: Site Location Plan



Appendix C: Development Habitats Plans



Appendix D: 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.
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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. 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.