Preliminary Ecological Appraisal & Preliminary Roost Assessment.

Description: *An assessment of the ecological features present, or potentially present, within the site and its surrounding area.*

Site: Scotch Lake Farm, Moor Lane, Harmondsworth. Middx UB7 0AP.

Client: Mr J Thurlbeck.

Status	Issue	Name	Date
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Final	2	**Matthew Game** BSc (Hons) MSc REnvP MIEnvSc	18/02/2025

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Acknowledgements

Not applicable for this report.

Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- 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)

Executive Summary

Matthew Game Consultancy was instructed to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at Scotch Lake Farm, Moor Lane, Harmondsworth. Middx UB7 0AP (hereafter referred to as "the site"). The survey was required to inform a planning application for the demolition of an existing outbuilding and construction of a new commercial building (hereafter referred to as "the proposed development").

The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 10 of this report.

Feature	***Foreseen impacts***	***Recommendations*** *Measures required to adhere to guidance, legislation and planning policies.*
Designated sites	No impacts to designated sites are anticipated due to the distance of the proposed development from such sites (where known).	Best practice measures to minimise the possibility of pollution and tree damage must be implemented during construction.
Roosting bats	The proposed development will result in the demolition of this building. This could result in damage/modification/destruction of any bat roosts present and could cause disturbance, death or injury to bats.	One bat emergence survey is required during the active bat season (May – September) to confirm presence or likely-absence of a bat roost in the building.

Contents

1 Introduction and Context

1.1 Background

Matthew Game Consultancy was instructed to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at Scotch Lake Farm, Moor Lane, Harmondsworth. Middx UB7 0AP (hereafter referred to as “the site”). The survey was required to inform a planning application for the demolition of an existing outbuilding and construction of a new commercial building. (hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in Appendix 1.

The aim of the PEA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development.

The aim of the PRA was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how bats could use the site for roosting, foraging, or commuting.

No previous ecology reports have been produced for this site by Matthew Game Consultancy, nor any other company, to the authors knowledge.

1.2 Site Context

The proposed development is located at approximate grid reference TQ 05343 77714 and covers an area of approx. 0.34Ha. The site sits on Moor Lane, Harmondsworth. The site encompasses five built structures consisting of 1 residential dwelling, 3 commercial buildings and a single outbuilding however only the timber outbuilding is due to be affected by the proposed development. The majority of the site is made up of developed land; sealed surface UKhabs code (u1b). The wider landscape is dominated by open green spaces with small pockets of residential development to the east. Notable landmarks in the area include Heathrow airport and associated lands to the south, Harmondsworth Moor to the west and the M4 to the north.

A site location plan is provided in Appendix 2.

1.3 Scope of the Report

The PEA element of this report describes the baseline ecological conditions at the site, evaluates habitats within the survey area in the context of the wider environment and describes the suitability of those habitats for notable or protected species. It identifies possible ecological constraints as a result of the proposed development and summarises the requirements for further surveys and mitigation measures to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

The PRA element of this report provides a description of all features suitable for roosting, foraging and commuting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on possible constraints to the proposed development as a result of bats and summarises the requirements for any further surveys to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken to record baseline information on the site and surrounding area including habitat types and their suitability for notable or protected species, including roosting bats.
- Invasive plant and animal species (such as those listed on Schedule 9 of the Wildlife & Countryside Act) have been identified.
- Potential impacts on features of value, as a result of the proposed development, have been identified.
- Recommendations for further surveys and mitigation have been made.
- Opportunities for the enhancement of the site for biodiversity have been set out.

2 Methodology

2.1 Desk Study

A search for Statutory Sites of Nature Conservation Value and Priority Habitats within 2 km of the Site was undertaken using the Multi Agency Geographical Information for the Countryside (MAGIC). MAGIC maps and OpenStreetMap maps and satellite imagery from online sources were consulted to identify the presence of any water bodies within 500 m of the Site.
Natural England's Open Data Geoportal was used to view the great crested newt risk zones maps. Historic OS maps and satellite imagery was also used to assess any changes to the onsite habitats.

Records of protected species, notable species, invasive species, and non-statutory sites from within 2 km of the Site were procured from the local Environmental Records Centre as part of this desk-based study. Records provided by the record centre that are more than ten years old are only reported on if they are deemed to still be relevant.
The relevant Local Biodiversity Action Plan was consulted to determine whether species and habitats identified (by both the desk study and the field survey) on and around the Site are subject to specific action plans.

The list of UK Biodiversity Action Plan (UK BAP) species was also consulted as this remains an important reference source, despite being succeeded by the UK Post-2010 Biodiversity Framework.

2.2 Field Survey

A Preliminary Ecological Appraisal survey of the Site was undertaken on the 6th of February 2025, by Lewis Smith BSc (Hons) (NE Bat Class Licence: WML-CL17 & Accredited Agent, NE Bat Class Licence: WML-CL18) who has over 6 years' experience in consultant ecology. This survey assessed the value of onsite and adjacent habitats and their potential to support protected or notable species and habitats following the Guidelines for Preliminary Ecological Appraisal published by the Chartered Institute for Ecological and Environmental Management (CIEEM).

Preliminary Ecological Appraisal

An extended habitat survey was undertaken, following the methodology set out in UK Habitat Classification User Manual (UK Habitat Classification Working Group, 2018). All land parcels are described and mapped and, where appropriate, target notes provide supplementary information on habitat conditions, features too small to map to scale, species composition, structure, and management. Botanical species lists were compiled with reference to the DAFOR scale,

(D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).

During the survey, habitats were assessed for their suitability to support protected species, and field signs indicating their presence recorded. The assessment takes into consideration the findings of the desk study, the habitat conditions on site and in the context of the surrounding landscape, and the ecology of the protected species.

Preliminary Roost Assessment

The PRA focussed on built structures which will be affected by the proposed development where disturbance to bat roosts (if present) could occur, as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat.

For any surveyed buildings:

A non-intrusive visual appraisal was undertaken from the ground, using binoculars to inspect the external features of the building(s) for features which bats could use for roosting, including access or egress points and for signs of bat use including droppings, scratch marks, insect remains and urine smear marks. An internal inspection of the building(s) was also made, including the living areas and any accessible roof spaces, using a torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof. An endoscope was used to complete a close-up inspection of any accessible features, where appropriate.

For any surveyed trees:

A visual inspection was undertaken from ground level using binoculars and, where accessible and safe to do so, an internal inspection of any features which bats could use for roosting was completed using an endoscope, torch and ladders.

Suitability Assessment

Built structures and trees were categorised according to the likelihood of bats being present and the types of roost that the identified features could support. This is summarised in Table 1 for buildings and Table 2 for trees below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats.

Classification	Feature of building and its context
Moderate to high	Buildings or structures with features of particular significance for larger numbers of roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data). Buildings with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A small number of possible roost sites or features, used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators. Habitat suitable for foraging in close proximity but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.
Negligible	Unsuitable for use by bats.

Table 2: Features of a tree that are correlated with use by bats.

Classification	Feature of tree and its context
PRF-M	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. Trees with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
PRF-I	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential to be used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators.
Negligible	Unsuitable for use by bats.

European Protected Species

Following the UK exit from the European Union (EU), species formerly protected under the Habitat Regulations are now considered to be protected under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and will continue to be referred to as European Protected Species (EPS). Further legislative details regarding protected species are included in Appendix 4.

Great Crested Newt (Triturus cristatus)

Great crested newts use both terrestrial and aquatic habitat within their lifecycle, with all habitats used being legally protected. The terrestrial and, if present, aquatic habitats onsite were assessed for their value and suitability for great crested newts. The proximity of ponds within 500 m and any habitat linking such ponds to the Site was also assessed as an important factor determining the likelihood of the species being present onsite. Any ponds present onsite or accessible during the survey were assessed using the Habitat Suitability Index (HSI) Assessment where appropriate.

Bats

Any trees or buildings present onsite were assessed for their suitability for roosting bats using the protocol set out in Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th ed). Where necessary this included the use of binoculars to allow for a ground level assessment to search for signs such as staining and/or droppings sometimes found around roost entrances. Internal inspections of buildings or loft voids were undertaken where possible, using ladders and crawling boards if appropriate.

It is noted that a lack of evidence of roosting bats, such as presence of bats, droppings, or staining, does not correlate to a lack or presence or a lack of suitability. Habitats were assessed for their suitability for foraging and commuting bats, as set out in Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th ed).

Hazel Dormice (Muscardinus avellanarius)

The Dormouse Conservation Handbook (2nd Ed.) provides a level of guidance on assessing a site where the status of hazel dormice is unknown. This assessment is made based upon historical records as well as the habitat and plant species present on and adjacent to the Site. As hazel dormice have a large range, a lack of evidence does not correlate to a lack of presence.

Otter (Lutra lutra) | *White Clawed Crayfish* (Austropotamobius pallipes)

Suitable waterbodies (if present) on or adjacent to the Site were assessed for their suitability to support these species, where access was possible. Any incidental evidence of the presence of these species on site (e.g. holts, spraints, foraging signs) was also recorded.

Other Species

Protected under the Wildlife and Countryside Act 1981 or further specific legislation, further detailed within Appendix 4.

Birds

Habitats on site were assessed for their potential to support nesting birds as well as important numbers of breeding and wintering birds.

Reptiles

Terrestrial habitats on site were assessed for their potential to support common reptile species, based on factors including vegetation structure and composition, and the availability of shelter and foraging resources.

All UK reptiles are protected, with rare species smooth snake (Coronella austriaca) and sand lizard (Lacerta agilis) also given EPS status.

Water Vole (Arvicola amphibius)

Suitable waterbodies (if present) on or adjacent to the Site were assessed for their suitability to support these species, where access was possible. Any incidental evidence of the presence of these species on site (e.g. burrows, latrines, foraging signs) was also recorded.

Badger (Meles meles)

Habitats on site were assessed for their suitability for badger foraging and sett building. Any incidental evidence of the presence of badgers on site (e.g. setts, paths, prints, foraging signs, and latrines) was recorded.

Priority Species

Habitats on site were assessed for their suitability for Priority Species. Priority Species are those listed as of Principal Importance in England under Section 41 of the NERC Act 2006, those listed as Local Priority Species, or those that feature on the relevant Local Biodiversity Action Plan. Any incidental evidence of the presence of these species on site was also recorded.

Invasive Species

A search was made for evidence of the presence of invasive plant species listed in Schedule 9 of the Wildlife and Countryside Act 1981 as they are subject to strict legal control.

2.3 Limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the searches of historical biological records.

Building(s) were inspected from ground level; a full assessment could not be made of areas out of view from ground level. Only buildings affected directly by the proposed development were subject to internal surveys.

As part of standard practice, a data search has been undertaken from the local biological record centre. This is not considered to be a complete list of species present and is better considered to be a list of species recorded, with many species known to be under recorded.

These limitations are produced in accordance with BS 42020; Clause 6.7.

This report does not purport to provide legal advice. This report provides baseline ecological conditions for the site and is considered relevant for a period of no more than 18 months from the date of the Site Visit.

However, these limitations are not considered to have affected the accuracy of the assessment or the recommendations provided in this report and, where considered necessary, recommendations for further survey have been made to overcome these limitations. This report presents conditions and recommendations for the Site based on the state of the Site during the survey visit. Any changes to the Site prior to development, including changes in the management of the Site habitats will therefore potentially invalidate this report and its recommendations.

3 Results and Evaluation

3.1 Desk Study Results

A summary of desk study results is provided below. The data search contains confidential information that is not suitable for public release and has been analysed and summarised for presentation in this report. Full records data can be provided upon request.

3.1.1 Designated Sites

Details of any statutory designated sites within a 2km radius of the site, including their reasons for notification, are provided in Table 3 below. The site lies within the impact risk zone for the Wraysbury Reservoir Site of Special Scientific Interest (SSSI). The proposed development type is not listed as a possible high risk with regard to this designation. Impact Risk Zones (IRZ) are used by local authorities (LPA) to assess whether developments are likely to impact statutory sites, including internationally designated sites, as well as Sites of Special Scientific Interest (SSSIs).

An extended search was made to include a 10km radius for all sites with Special Protection Areas (SPAs), Special Areas of Conservations (SACs) and RAMSAR designations. Southwest London Waterbodies (SPA & Ramsar) was identified 3km south and Windsor Forest & Great park (SAC) was identified 8.6km southwest.

Table 3: Statutory designated sites within 2km radius of the site

Designated site name	*Distance from site (approx.)*	*Reasons for notification from Natural England and LRC Name and United Nations Educational, Scientific and Cultural Organisation (UNESCO)*
None		

3.1.2 Landscape

A review of aerial photographs (Google Earth) the magic.gov.uk database and OS maps has been undertaken. Collated together, the value of the landscape in terms of biodiversity is described below:

The proposed development is located at approximate grid reference TQ 05343 77714 and covers an area of approx. 0.34Ha. The site sits on Moor Lane, Harmondsworth. The site encompasses five built structures consisting of 1 residential dwelling, 3 commercial buildings and a single outbuilding however only the timber outbuilding is due to be affected by the proposed development. The majority of the site is made up of artificial unvegetated, unsealed surface UKhabs code (u1c). The wider landscape is dominated by open green spaces with small pockets of residential development to the east. Notable landmarks in the area include Heathrow airport and associated lands to the south, Harmondsworth Moor to the west and the M4 to the north. There are tree lines around the area, which could be used by wildlife for shelter, foraging and commuting.

3.1.3 Notable Habitats

Notable habitats within 2km are listed in Table 4.

Table 4: Notable habitats within 2km of the site

Habitat	*Closest distance from site (approx.)*
Traditional Orchards	100 metres north
Deciduous woodland (Ancient)	250 metres west

3.1.4 Bats

No species of bat were noted within the 2km data search occurring within last 10 years the most recent record was in 2014 for Brown long eared and Soprano pipistrelle species.

A search of the magic.gov.uk database for granted European Protected Species Licences (EPSLs) within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites near the licensed site. EPSL records for bats identified within the 2km search area are shown in table 5 below.

Table 5: Granted EPSLs for bats within 2km of the site.

EPSL reference	*Approx. distance from site*	*Bat species affected*	*Licence start date:*	*Licence end date:*	*Impacts allowed by licence*
2014-5172-EPS-MIT	700 metres north	BLE, S-PIP	31/01/20214	30/01/2015	Destruction of a resting place

3.1.5 Great Crested Newts

The desk study returned six records of great crested newts within 2 km of the Site. Data records also show them present in the wider area (within 5 km on all aspects).

Nine ponds were identified within 500 m of the proposed development. The Site falls under a green risk zone under the Natural England district level licensing scheme. The risk zones for district level licensing have been produced by Natural England using data modelling and based on great crested newt populations collected data to show areas where great crested newts are likely to be present and assess the effect of a proposed development in the area.

Amber – Amber zones contain main population centres for GCN and comprise important connecting habitat that aids natural dispersal.

3.1.6 Birds

141 Records of species returned by the data search included a range of species typical of the landscape surrounding the Site and included notable species listed in Table 6, below.

Table 6: Notable Birds within the Data Search.

Scientific Name	Common Name	Schedule 1 WCA	BoCC Status	National Priority	Local Priority
Apus apus	Swift		Red		
Sturnus vulgaris	Starling		Amber		
Coloeus monedula	Jackdaw		Green		
Cyanistes caeruleus	Blue tit		Green		
Hirundo rustica	Swallow		Green		

Nine records of bird species listed on schedule 1 of the WCA 1981 (as amended) were returned within a 2km search radius. 62 records of species on the Birds of Conservation Concern (BoCC) were also returned. It is reasonable to infer that the site does not support notable assemblages of these species due to the small scale and limited habitat suitability available for these species.

3.1.7 Reptiles

Six records of common reptile species were returned in the data search, Grass snake (Natrix Helvetica) was the closest approx. 500 metres west.

3.1.8 Badgers

The desk study returned three records for badger (Meles meles) within 2 km of the proposed development. The closest record being approx. 1200 metres southwest of the site and dated 2024.

3.1.9 Hazel Dormouse

No records of dormouse Muscardinus avellanarius were returned within the records search, Connectivity is not available therefore species is considered absent from site and the development will not impact any areas suitable for the species and therefore they are not considered further within this assessment.

3.1.9 Otter & Water vole

No records of Water vole and one Otter record were provided by the data search within the last 10 years. Both species are considered absent from site due to a lack of suitable habitat and are not considered further within this assessment.

3.1.9 Priority & Notable Species

The desk study returned nine records for hedgehog Erinaceus europaeus. The nearest record for hedgehog was 1200 metres north and was dated 2020.

3.2 Field Survey Results

The results of the field survey are illustrated in Appendix 3. The weather conditions recorded at the time of the survey are shown in Table 8.

Table 8: Weather conditions during the survey

Date: 06/02/2025	
Temperature	9°C
Humidity	18%
Cloud Cover	30%
Wind	3mph
Rain	None

3.2.1 Bats

Roosting Habitat

Buildings – Low Suitability

Trees – Negligible Suitability

Buildings on-site are deemed low suitability for bats due to potential roosting features available on the building. The trees adjacent to the proposed development contain no features that could be used by bat species for roosting.

Foraging and Commuting

Foraging – Low Suitability

Commuting – Low Suitability

The site has low suitability for foraging and commuting bats across the site with linear features present in the local area. There is some connectivity available locally, through these linear features connecting the site to the wider areas of arable fields and woodland copses. It is reasonable to infer that impacts on bat populations at the local level are unlikely given the scale of development and location of the proposed development from the nearest habitat feature

3.2.2 Great Crested Newts

On-site Terrestrial habitat – Low Suitability

On-site Connectivity – Low Suitability

Nine ponds were identified during the desktop and field surveys, within 500 metres of the proposed development. The habitat beneath the development footprint comprises mainly of modified grassland and developed land, sealed surface which provide low suitability for GCN.

3.2.3 Birds

On-site nesting habitat – Low Suitability

On-site foraging habitat – Low Suitability

The field survey noted the following species on the Site, seen in Table 8:

Table 8: Birds recorded onsite.

Scientific Name	Common Name	Schedule 1 WCA	BoCC Status	National Priority	Local Priority
None					

The Site walkover was carried out at ground level so any nests out of view cannot be accounted for. The buildings on site are deemed to have low suitability due to more widespread habitat available locally.

3.2.4 Reptiles

On-site refuge – Negligible Suitability

On-site foraging and commuting habitat – Negligible Suitability

The Site provides negligible value for foraging and commuting reptiles with no refuge available on-site either. The site is comprised of modified grassland and hardstanding which have negligible value for reptiles.

3.2.5 Priority & Notable Species

Local areas of trees and hedgerow, provide suitable foraging, commuting and refuge for a range of small mammals such as hedgehogs. Common invertebrate assemblages could also use the hedgerow areas available locally to site.

3.2.6 Badgers

On-site sett building opportunities – Negligible Suitability

On-site foraging and commuting habitat – Negligible Suitability

There is negligible potential for foraging and commuting badgers on the site. No on-site or adjacent habitats could be used for sett building however due to the composition of the site foraging and commuting habitats exist. No setts or signs of badger were noted within 30 metres of the site boundaries.

3.2.7 Hazel Dormouse

On-site nest building opportunities – Negligible Suitability
On-site foraging and commuting habitat – Negligible Suitability

No records of dormice was returned within the data search. Dormice typically utilise a three-dimensional habitat structure as to commute between feeding and breeding sites whilst avoiding predation; no habitats within the locality of the site are able to support this habitat structure. Furthermore, for isolated habitats in the UK, research indicates that dormice require 20ha of woodland habitat to support a viable population (Bright *et al.* 1994). 20ha of woodland is not present on or adjacent to the site.
The proposed development is not considered to impact on any suitable habitat for dormouse.

3.2.8 Otter and Water Vole

On-site habitat opportunities – Negligible Suitability
On-site commuting habitat – Negligible Suitability

No Local records of Water vole and one Otter records were noted in the records search. No impacts are anticipated on waterways that are considered suitable for Water vole or Otter. With the implementation of pollution prevention and control, no indirect impacts are anticipated on suitable ditch habitats, and as such habitats near the proposed development do not provide suitable features for supporting an otter holt and no significant impacts are anticipated on otter or Water vole.

3.2.9 Habitats and Flora

Habitats noted on the Site were assessed using the Handbook for The UK Habitat Classification and included buildings, grassland and sealed surface. Primary and secondary (where applicable) habitat codes are included for ease of reference.

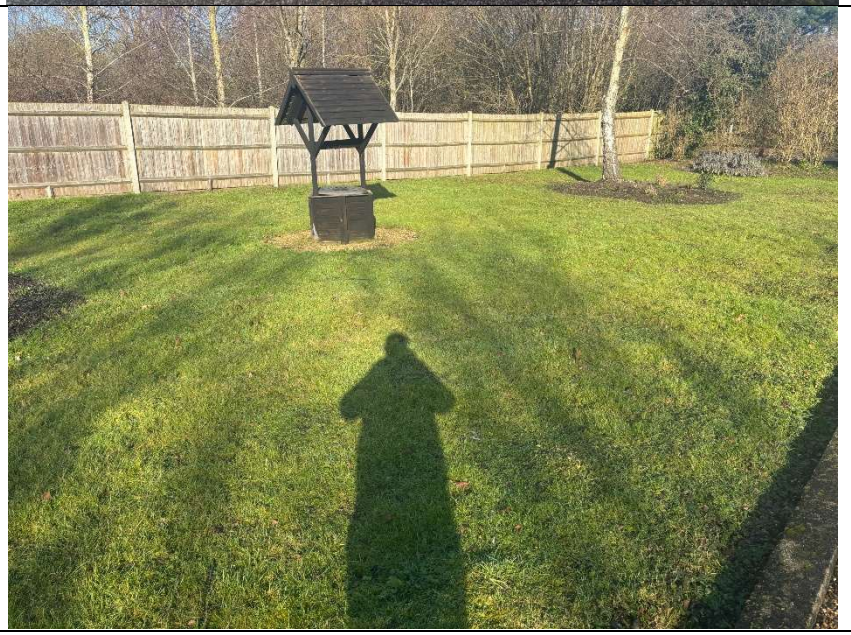
The following habitats are present within and adjacent to the site:

- Buildings (u1b5)
- Artificial unvegetated, unsealed surface (u1c)
- Modified grassland (g4)

A description and photograph of each habitat is provided in Table 9.

Table 9: Description and photographs of habitats within and adjacent to the site

Habitat Type	Habitat description	Photograph
Buildings	Building B1 is a timber framed structure that runs along the western boundary of the site and is the only building due to be affected by the proposed development, multiple potential roosting features were identified including gaps under the weather boarding, gaps in the roof and lack of windows allowing access internally.	

Artificial unvegetated, unsealed surface	A loose stone driveway which provides access to the site.	
Modified grassland	This area of grassland is subject to regular cutting, resulting in a sward of approximately 5cm – 10cm in length. Species composition is poor, comprising predominantly perennial ryegrass Lolium perenne (D) and meadow grass species Poa sp (A) with occasional broad-leaved herbs such as dandelion Taraxacum spp (O).	

Building B1 Exterior (Eastern elevation) Building B1 is a timber framed structure that runs along the western boundary of the site and is the only building due to be affected by the proposed development, multiple potential roosting features were identified including gaps under the weather boarding, gaps in the roof and lack of windows allowing access internally.	
Building B1 Exterior (Northern elevation) The northern elevation of B1 is in bad condition with gaps in the timber and roof sheets. This building aspect is deemed to have low value for roosting bats due to the features present.	

B1 Evidence of bats	B1 Breeding birds and other incidental observations.
There was no evidence of bats located externally or internally (where surveyed) on the survey building.	There was no evidence of nesting birds located externally or internally (where surveyed) on the survey building.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

A summary of the relevant legislation and planning policies is provided in Appendix 4.

Likelihood of the Presence of Protected Species

Where physical evidence of the presence of protected species is indeterminate during the survey, the habitats on site are evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat.

Where this report supports a planning application, the ecological interest of the study area (i.e. the area covered by the desk study and field survey), and the proposed development has also been evaluated in terms of the planning policies relating to biodiversity.

4.2 Evaluation

Taking the desk study and field survey results into account, Table 11 presents an evaluation of the ecological value of the site and also details any ecological constraints identified in relation to the proposed development.

Table 11: Evaluation of the site and any ecological constraints

Ref	*Summary of Survey Findings*	*Foreseen Impacts*	*Recommendations* *Measures required to adhere to guidance, legislation and planning policies.*	*Biodiversity Enhancements*
Designated sites	The site does not sit within any statutory or non-statutory designated sites. The site lies within the impact risk zone for the Wraysbury Reservoir Site of Special Scientific Interest (SSSI). The proposed development type is not listed as a possible high risk with regard to this designation.	No impacts to designated sites are anticipated due to the distance of the proposed development from such sites (where known).	Best practice measures to minimise the possibility of pollution and tree damage must be implemented during construction.	None.
Habitats and flora	There are no notable habitats within the site, but two habitats are present within 2km of the site, the closest being traditional orchards located 100 metres from the site. Other habitats within the site are common and widespread and have negligible ecological value.	No impacts to any notable habitats are anticipated due to the small scale of the proposed development as well as the location of the site with surrounding physical barriers.	Best practice measures to minimise the possibility of pollution and tree damage must be implemented during construction.	None

Amphibians	Nine ponds were identified within 500 metres of the site. Site sits within a amber risk zone with negligible value terrestrial Great Crested Newt habitat on the site of the proposed development.	The proposed development will not result in the loss of any ponds. However, due to the presence of ponds within close proximity of the site, indirect effects such as pollution could occur during construction.	Owing to the nature of the proposed development and the low potential for impacts to great crested newts, further surveys are considered to be disproportionate. A precautionary working method will be implemented for common amphibians during construction, including the following measures: • Site clearance will be undertaken outside of the amphibian hibernation season (November to February) insofar as is possible. • A toolbox talk will be given to contractors regarding the possible presence of amphibians, including great crested newt, at the site. • Heras fencing will be erected around the working area to prevent encroachment into retained habitats where amphibians could be present. • A pre-commencement inspection of the site will be undertaken for amphibians. • A staged approach will be adopted for vegetation clearance, whereby the vegetation will be strimmed to 15cm and left overnight to allow any amphibians to disperse. The vegetation can then be cleared to ground level and must be maintained at this level for the duration of construction to deter amphibians from the working area.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for amphibians: • The creation of a wildlife pond/enhancement of existing pond for wildlife to include native plant species and no fish. • Creation of amphibian refugia and hibernacula using debris and brash from site clearance. • Planting of native scrub and grassland to increase foraging opportunities.

			• Any rubble piles will be dismantled by hand and debris and brash will be stored on pallets or removed from the site to prevent amphibians from utilising these areas. • Best practice pollution prevention measures will be implemented to minimise impacts to retained habitats that amphibians could use. • Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations. • If any common amphibians are found in the working area these should be moved by hand to a vegetated area along the site boundaries or in retained habitats away from disturbance. In the unlikely event that a great crested newt is identified, works must cease and advise must be sought from a suitably qualified ecologist.	
Reptiles	Due to the lack of reptile records locally and the habitats available on-site reptiles are deemed absent from site.	No impacts are anticipated on reptiles as a result of the proposed development.	None.	None.

Roosting bats	Building affected by the proposed development has low value for roosting bats due to a lack of potential roost features.	The proposed development will result in the demolition of this building. This could result in damage/modification/destruction of any bat roosts present and could cause disturbance, death or injury to bats.	One bat emergence survey is required during the active bat season (May – September) to confirm presence or likely-absence of a bat roost in the building. Two surveyors are required to provide full coverage of the building. If bat roosts are confirmed in the building two additional surveys will be required to inform an EPSL application to Natural England. The EPSL application requires that all surveys have been undertaken within the most recent active bat season and planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission.	The installation of one bat box retained or new buildings will provide additional roosting habitat for bats e.g. **Beaumaris Bat Box** (buildings) **Vivara Pro Woodstone Bat Box** (buildings) Or a similar alternative brand. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light.
Foraging and commuting bats	There are habitats on the site which could be used by bats for foraging or commuting.	The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats.	None	None

Badger	No suitable sett building habitat is available on site, low value commuting and foraging habitat is available.	No impacts are anticipated on badgers as a result of the proposed development.	None	None
Hazel dormouse	No suitable habitat is available on or adjacent to the site.	No impacts are anticipated on hazel dormice as a result of the proposed development.	None	None
Hedgehog	Adjacent habitats could support local hedgehog populations.	No impacts are anticipated on hedgehogs as a result of the proposed development.	None	None
Otter	No suitable habitat is available on site.	No impacts are anticipated on otters as a result of the proposed development.	None	None
Water vole	No suitable habitat is available on site.	No impacts are anticipated on Water vole as a result of the proposed development.	None	None
Birds	The site is considered likely to support common and widespread garden breeding bird species.	No impacts are anticipated on bird species as a result of the proposed development.	None	None
Invertebrates	The site is considered unlikely to support significant assemblages of rare or notable invertebrates due to the common habitats on site restricting variety and density of micro habitats available.	No impacts are anticipated on invertebrates as a result of the proposed development.	None	None

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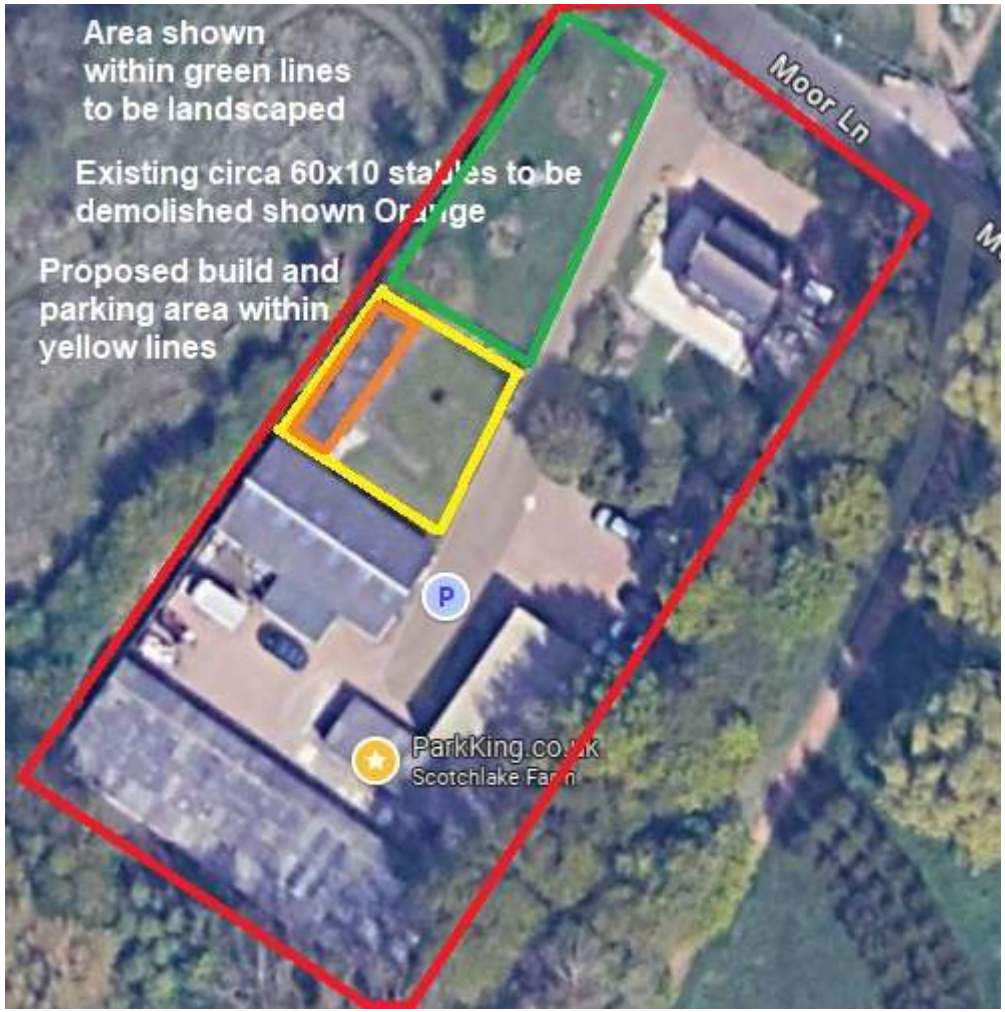
Appendix 1: Proposed Development Plan



Appendix 2: Site Location Plan

Appendix 3: Habitat Survey Plan

Appendix 4: 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 (the Wild Birds Directive) respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe. Over 1000 animal and plant species, as well as 200 habitat types, listed in the directive's annexes are protected in various ways:

Annex II species (about 900): core areas of their habitat are designated as Sites of Community importance (SCIs) and included in the Natura 2000 network. These sites must be managed in accordance with the ecological needs of the species.

Annex IV species (over 400, including many Annex II species): a strict protection regime must be applied across their entire natural range, both within and outside Natura 2000 sites.

Annex V species (over 90): their exploitation and taking in the wild is compatible with maintaining them in a favourable conservation status.

SPAs are classified under Article 2 of the Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds both for rare bird species (as listed on Annex I) and for important migratory species.

The Conservation of Habitats and Species Regulations 2017 (as amended) form the legal basis for the implementation of the Habitats and Birds Directives in terrestrial areas and territorial waters out to 12 nautical miles in England and Wales (including the inshore marine area) and to a limited extent in Scotland and Northern Ireland.

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 01.04.1996) 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). Further provisions for the protection and management of SSSIs have been introduced by the Nature Conservation (Scotland) Act 2004.

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.

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 Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) aims to promote the maintenance of biodiversity by requiring the Secretary of State to take measures to maintain or restore wild species listed within the Regulations at a favourable conservation status.

The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

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 1979, implemented 1982) 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).

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 1992 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 (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) for any development works likely to affect an active badger sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agencies to define what would constitute a licensable activity. It is no possible to obtain a licence to translocate badgers.

Birds

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

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

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and 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.

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 reptiles 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 Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely 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 likely to affect habitats known to support water voles, the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) 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 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:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely 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:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works are likely 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.

Hazel Dormice

Hazel 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 a European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales (NB: Hazel Dormouse are entirely absent from Scotland)). The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

White Clawed Crayfish

There is a considerable amount of legislation in place in an attempt to protect the White-clawed crayfish *Austropotamobius pallipes*. This species is listed under the European Union's (EU) Habitat and Species Directive and is listed under Schedule 5 of the Wildlife and Countryside Act (1981). This makes it an offence to:

- Protected against intentional or reckless taking.
- Protected against selling, offering or advertising for sale, possessing or transporting for the purpose of sale.

It is also classified as Endangered in the IUCN Red List of Endangered Species. As a result of this and other relevant crayfish legislation such as the Prohibition of Keeping of Live Fish (Crayfish) Order 1996, a series of licences are needed for working with White-clawed and non-native crayfish. These are:

- A licence to handle crayfish (therefore survey work) in England.
- A licence for the keeping of crayfish in England and Wales with an exemption for Signal crayfish (England).
- People in the post-code areas listed with crayfish present prior to 1996 do not need to apply for consent for crayfish already established. It does not, however, allow any new stocking of non-native crayfish into waterbodies. Consent for trapping of non-native crayfish for control or consumption is most likely to be granted in Thames and Anglian regions in the areas with "go area" postcodes.
- Harvesting of crayfish is prohibited in much of England and in any part of Scotland and Wales.

Effects on development works:

The relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) 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:

A European Protected Species Licence (EPSL) will be required from the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) for works which are likely to affect species of planted listed on Schedule 5 of the Conservation or Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Invasive Species

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

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

Effects on development works:

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

Injurious weeds

Under the Weeds Act 1959 any landowner 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*

Effects on development works:

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)

Environment Act 2021

Preliminary Ecological Appraisal

The Environment Act 2021 (EA 2021) received Royal Assent on 9 November 2021 and is expected to become fully mandated within the next couple of years. The Act principally creates a post Brexit framework to protect and enhance the natural environment. Through amendments to the Town and Country Planning Act 1990, the Act will require all planning permissions in England (subject to exemptions which is likely to include householder applications) to be granted subject to a new general pre-commencement condition that requires approval of a biodiversity net gain plan. This will ensure the delivery of a minimum of 10% measurable biodiversity net gain. The principal tool to calculate this will be the Defra Biodiversity 3.0 Metric. Works to enhance habitats can be carried out either onsite or offsite or through the purchase of 'biodiversity credits' from the Secretary of State. However, this flexibility may be removed (subject to regulations) if the onsite habitat is 'irreplaceable'. Both onsite and offsite enhancements must be maintained for at least 30 years after completion of a development (which period may be amended).

National Planning Policy Framework 2021

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 species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) 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; measurable gains in biodiversity in and around developments are incorporated; 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 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.

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:

Preliminary Ecological Appraisal

- 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.