



Preliminary Ecological Appraisal and Preliminary Roost Assessment

7 Chapel Street, Manchester, M19 3QB

Keith Burke

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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.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

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.

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

Arbtech Consulting Limited was instructed by Keith Burke to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at 7 Chapel Street, Manchester, 19 3QB (hereafter referred to as “the site”). The survey was required to inform a planning application for the clearance of existing buildings and the erection of 7No. houses and 2No. apartments, with the formation of a new access road and associated outbuildings (hereafter referred to as “the proposed development”).

The following is work you will need to commission to comply with planning policy and legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 7 of this report.

Feature	Survey Results Summary	Impact Assessment	Recommendations
Roosting bats (B3)	B3 has a low suitability for roosting bats, due to an excess of roosting features, and no internal access to assess the true suitability of the site. This building is also sealed, and so is not subject to the same amount of disturbance and noise as the other buildings onsite.	The proposed development will result in the demolition of all buildings onsite, which could result in the destruction of any bat roosts onsite. Bats could be utilising B3, and so the demolition of this building could result in the destruction of any bat roosts present.	As B3 has a low suitability for bats, one bat emergence or re-entry survey is required during the active bat season (optimal May to August, suboptimal September) to confirm presence or likely-absence of a bat roost in the building.
Birds	The buildings onsite have suitability for nesting birds, however it is unlikely that they can support any schedule 1 species such as barn owls.	The buildings onsite will be removed during construction. The loss of which is unlikely to present an issues for the local population of birds. Furthermore, the proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Demolition of the buildings should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.

Contents

1.0 Introduction and Context..... 6

1.1 Background 6

1.2 Site Location and Landscape Context..... 6

1.3 Scope of the Report 6

2.0 Methodology..... 8

2.1 Desk Study 8

2.2 Field Survey 8

2.3 Limitations 9

3.0 Results and Evaluation 11

3.1 Designated Sites..... 11

3.2 Field Survey Results..... 11

4.0 Conclusions, Impacts and Recommendations 28

4.1 Informative Guidelines..... 28

4.2 Evaluation 28

5.0 Bibliography 33

Appendix 1: Proposed Development Plan..... 36

Appendix 2: Site Location Plan 37

Appendix 3a: Habitat Survey Plan 38

Appendix 3b: PRA Plan..... 39

Appendix 3c: Proposed BERS Plan..... 40

Appendix 3d: Pond Location Plan Error! Bookmark not defined.

Appendix 4: Legislation and Planning Policy..... 41

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Keith Burke to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at 7 Chapel Street, Manchester, 19 3QB (hereafter referred to as “the site”). The survey was required to inform a planning application for the clearance of existing buildings and the erection of 7No. houses and 2No. apartments, with the formation of a new access road and associated outbuildings (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 Arbtech Consulting Ltd or, to the author’s knowledge, by any other consultancy.

1.2 Site Location and Landscape Context

The site is located at National Grid Reference SJ 87476 94223 and has an area of approximately 0.2ha comprising of scattered trees, developed land; sealed surface and artificial unvegetated, unsealed surface and buildings. It is located to the south east of Manchester city centre, west of Reddish. The wider landscape comprises of urban dwelling areas with few scattered trees and a railway to the west of site. 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.

2.0 Methodology

2.1 Desk Study

The desk study included a review of the magic.gov.uk database for statutory designated sites within a 2km radius of the site. Landscape value and the presence of notable habitats as well as granted European Protected Species Licence (EPSL) and notable species records held on magic.gov.uk database has also been considered where these are within influencing distance of the site.

2.2 Field Survey

The survey was undertaken by Charlie Moore BSc (Hons) (Accredited to Natural England Bat Licence number: 2016-22843-CLS-CLS) on 16/5/23.

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 5 built structures which will be affected by the proposed development 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 buildings 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 buildings 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 space.

Suitability Assessment

Built structures 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 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
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.
Moderate	Buildings or structures with one or more features suitable for more regular roosting due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation value such as maternity or hibernation roosts. Continuous habitat connected to the wider landscape which could be used by bats for commuting such as lines of trees, linked gardens. Foraging habitat in the surrounding area such as trees, scrub, grassland or water.
Low	Buildings or structures with one or more features suitable for use 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 largely isolated in the landscape. Or an isolated site not connected by prominent linear features.
Negligible	Unsuitable for use by bats.

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.

A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

. B3 is a sealed shut unit, therefore it was not possible to complete a thorough inspection of the interior of this building.

These limitations have been taken into account during the evaluation of the site and requirement for further surveys and mitigation.

3.0 Results and Evaluation

3.1 Designated Sites

Details of any statutory designated sites within a 2km radius of the site, including their reasons for notification, are provided in Table 2 below. The presence of non-statutory designated sites within 2km cannot be established without biological records data from Greater Manchester Local Records Centre (GMLRC) However, it is considered unlikely that such sites would be present in the immediate vicinity due to the lack of greenspace and built up nature of the land surrounding the site.

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

Designated site name	Distance from site	Reasons for notification from Natural England
Highfield Country Park Local Nature Reserve (LNR)	660m south east	Highfield Park comprises of different types of grassland, marshy grassland, scrub, wet woodland, ponds, relict hedges and plantation woodland. Fallowfield Brook also runs through the site.

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 3.

Table 3: Weather conditions during the survey

Date:	16-5-23
Temperature	14°C
Humidity	61%
Cloud Cover	100%
Wind	12mph
Rain	None

Habitats and Flora

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

- Buildings (u1b5)
- Developed land; sealed surface (u1b)
- Artificial unvegetated, unsealed surface (u1c)
- Built up areas with scattered scrub and trees (u1 – 10 – 11)

A description and photographs of each habitat are provided in Table 4.

No protected or non-native invasive plant species (as listed under Schedules 8 or 9 of the Wildlife and Countryside Act 1981) were identified on the site.

Table 4: Description and photographs of habitats within and adjacent to the site

Habitat type	Habitat description	Photograph
Buildings	There are 5 individual buildings located onsite. All are constructed from brick, with varying roof construction including steel roof, slate tiles, bitumen tiles and flat concrete slabs. Generally, these buildings are in fair condition, however some have gaps that could be exploited by nesting birds.	
Developed land; sealed surface	Half of the site is paved with concrete hard standing.	

Artificial Unvegetated unsealed surface	Half of the site is comprised of unsealed surface, that is regularly compacted through the use of heavy equipment.	
Bult up areas with scattered scrub and trees	Located in the less disturbed sections of the site is several pioneering species of hardy plant. Species include buddleja (a), bramble (o) and ash (r).	

Fauna

Bats

The results of the PRA are provided in Table 5. No evidence of roosting bats was identified during the survey.

Table 5: Assessment of the suitability of the site for bats

Feature	Description	Photographs
Historical records	1No. EPSL has been returned within 2km of site approximately 1400m north of the site and covers the destruction of a resting place for common pipistrelles.	N/A
Bat foraging and commuting habitat	The site is located in a dense urban area, with few mature trees that could be used by bats. However, there is a railway to running to the west of the site that is likely to support foraging and commuting bats, due to its linear nature and boundary vegetation.	

Site overview	The site is a large industrial fabrication yard, comprising of 5No. individual workshops. B1 (red) – a large steel roofed pole barn constructed with a concrete breeze block base. B2 (blue) – a single story concrete shed, constructed from bricks and concrete. B3 (green) – a single story brick built barn with a bitumen tiled roof. this building has been sealed shut and so is not accessible for an internal inspection. B4 (purple) – a two story workshop constructed from bricks with a steel roof on one side (the western elevation) and a dilapidated tile roof on the right (currently sealed with plastic sheeting) B5 (yellow) – a large brick built workshop with a mix of slate tiles, bitumen felt, and steel roof material.	
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B1 –
exterior/interior

B1 is a large pole barn constructed on top of a brick foundation and lower wall. This building is currently used for metal fabrication, and so is regularly disturbed through lighting, noise and vibration from machinery and power tools.

Steel roofs are generally considered to have negligible suitability for roosting bats, due to the thermodynamic properties associated with metal roofing. Similarly, the ridges are constructed from steel RSJ's which is suboptimal for void dwelling species such as brown long eared bats.

The brickwork of the lower wall is generally in good condition, a gap between the individual skins in the walls. This is unlikely to provide suitable crevices for roosting bats due to the openness and superior suitability for nesting from bird species such as sparrows.

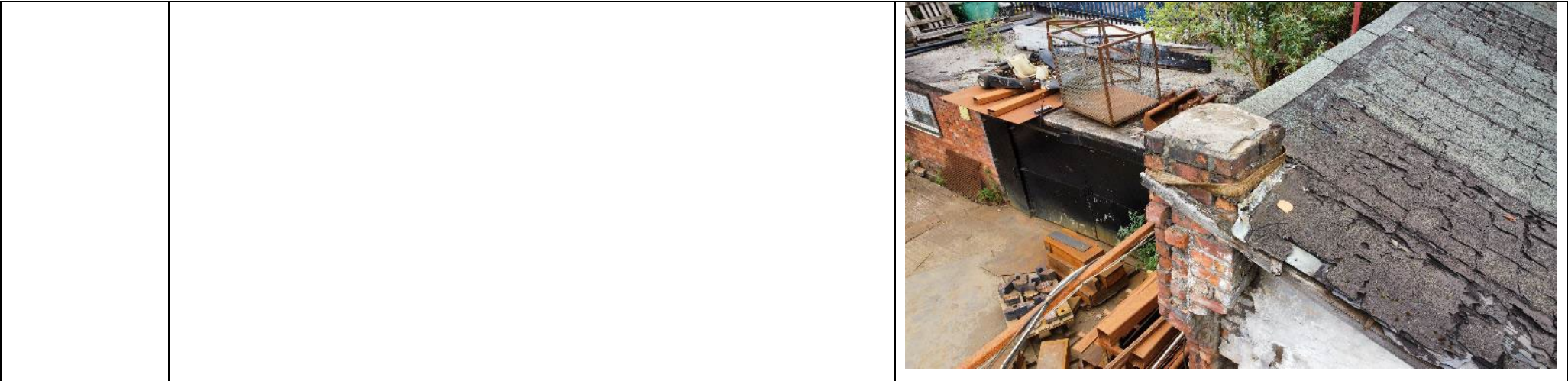




B2 – interior/exterior	B2 is a single story, flat roofed building constructed from brickwork, which is in good condition, with no suitable gaps that could be utilised by crevice dwelling bats (gaps that are present do not proceed into crevices or are covered with cobwebs indicating a lack of recent use). The roof of B2 is constructed entirely from concrete and bitumen felt. Both these roof constructions are considered to have negligible value for roosting bats, due to a lack of suitable roosting features associated with them.	
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B3 – exterior	B3 is a single-story building constructed from brick with a bitumen felt roof. B3 is sealed, and so was not accessible for an interior survey. The brickwork around the building is rendered, although is cracked with several crevices and cracks that could be utilised by crevice dwelling fauna. Similarly, there is several large gaps that could be utilised by void dwelling bats to access the interior of this building.	
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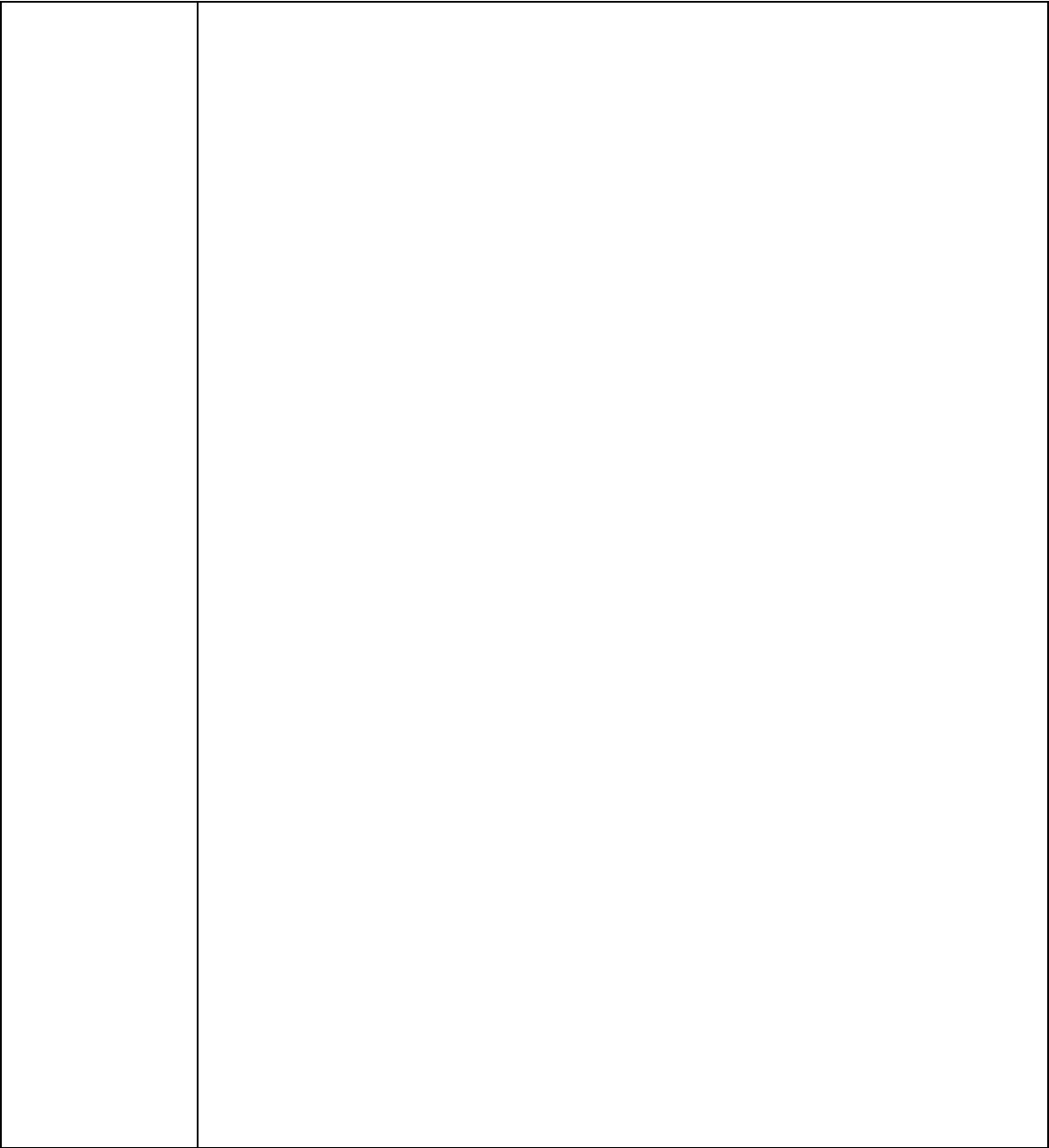


B4 –
Interior/exterior

B4 is a large building with two individual sections; a workshop garage area (steel roof) with storage area to the east. The brickwork to this building is in good condition, with no suitable gaps that bats could use to access the interior of the building. The workshop section has a roof constructed from steel, and it is not well sealed – there are several gaps to the interior of the building which are suitable for access, however due to the construction of the roof and disturbance of the building, the interior is considered suboptimal for bats.

The second section is constructed from bitumen felt and has an annexed storage section to the top of the building.

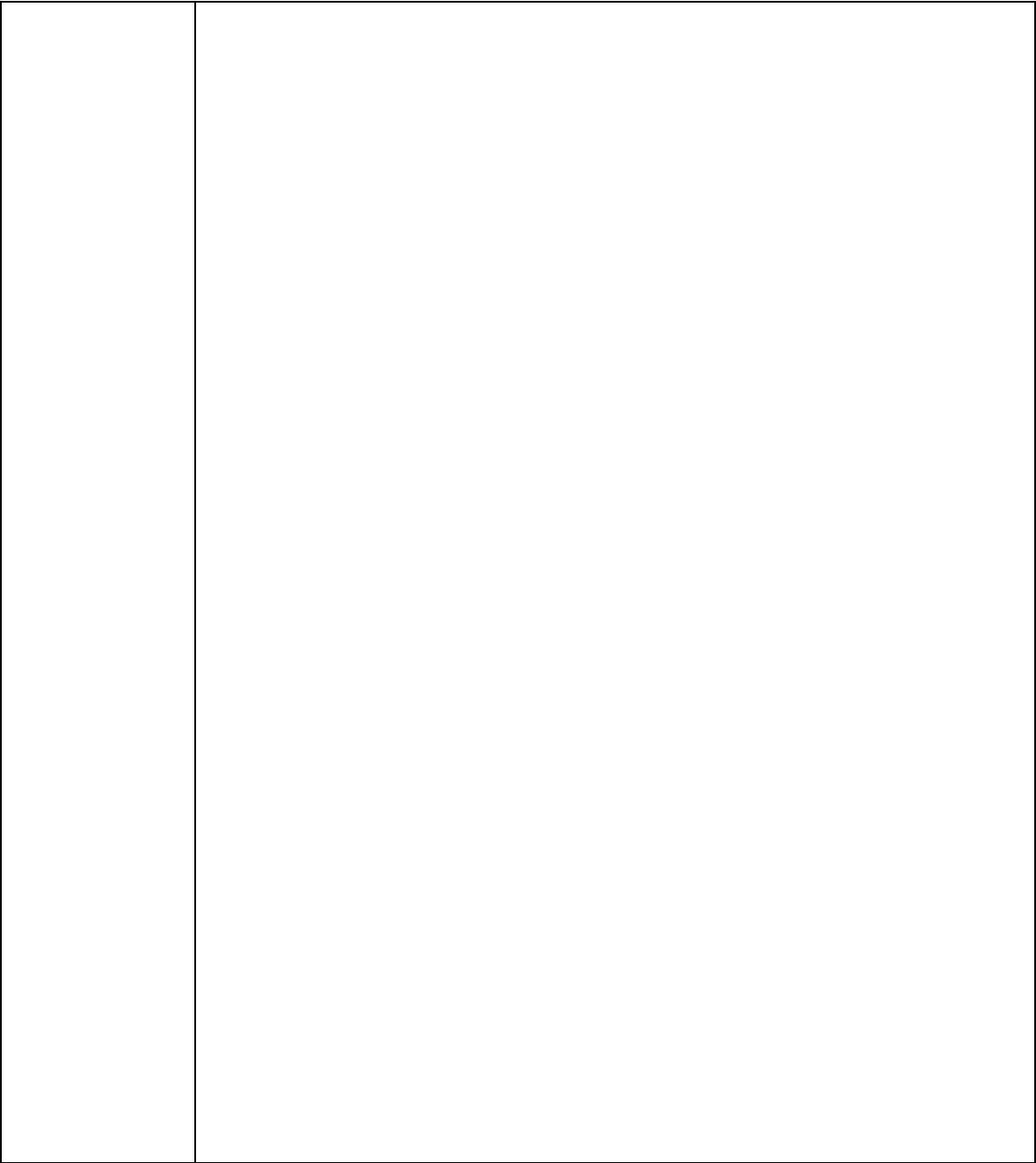




B5 –
interior/exterior

B5 is a liner building constructed from brick with a bitumen felt roof. The building is used for metal fabrication and so is subject to a significant amount of disturbance. The roof is also unlined, and has a drop ceiling with mould present, indicating dampness and an unsealed roof. Several windows within the building are also smashed, leading to the interior being open to the elements.





Site – suitability assessment	Buildings 1,2,4 and 5 all have negligible suitability for roosting bats, due to a lack of suitable roosting features, lack of weatherproofing and constant disturbance. Disturbance from heavy machinery and noise, along with the lighting present in and around the yard are all suboptimal for bats. Building 3 has a low suitability for roosting bats, due to the extensive presence of suitable features, but continues disturbance through machinery and lighting. The area within 2km is suboptimal for bats also, due to a lack of suitable foraging roosting and commuting habitat (excluding the railway), along with street lighting. No evidence of bats has been observed around the site or in any of the buildings.	N/A
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Other Species

An assessment of the suitability of the site for protected or notable species is provided in Table 6.

There are no further EPSLs in 2km pertaining to any other species besides bats.

Table 6: Assessment of the suitability of the site for protected or notable species

Species	Assessment of suitability
Amphibians	Great crested newts exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton <i>et al.</i> 2001). A review of aerial imagery indicates no ponds within 500m of the site. There is however a drainage ditch located approximately 450m from the site, that could be suitable for common amphibians, however lacks suitable connective habitat to the site to be considered for use by amphibians. Furthermore, the site does not present any suitable habitats for amphibians, including great crested newts due to the disturbance of the site by machinery and lack of hibernacula. The site is also bounded on all sides by walls and fences, the construction of which would present a major obstacle for amphibians.
Reptiles	The site has no suitable habitat for hibernacula or sheltered basking spots that could be used by reptiles. Furthermore, the site is subject to high levels of disturbance and so is suboptimal for reptiles.
Badgers	There is no evidence of badgers onsite or within 30m of site. The sites topography is flat, and so is suboptimal for sett construction. The site is also bounded on all sides by a wall, restricting access into the interior of the site.
Hazel Dormouse	The habitats onsite are unsuitable for Hazel Dormice, as they lack habitats including a complex three dimensional structure to support their complex lifestyle. The site is also barred from external connectivity to any suitable habitats that may be in the area, due to the man made barriers around the boundary of site.

Hedgehog	There is a lack of suitable habitat onsite for hedgehogs, including long grassland, scrub and areas of brash that they could use to shelter from predation and for foraging. Furthermore, the site is bounded on all sides by a wall and fences, which would pose a significant barrier for hedgehogs.
Riparian mammals	There are no significant watercourses within 2km of site, only small drainage ditches and small ponds, meaning that riparian mammals are unlikely to be within the area. Further, the walls and fencing around the boundary of the site are likely to pose a significant barrier to riparian mammals accessing site.
Birds	There are no significant trees located within site that could be suitable for nesting birds, although several of the buildings are open enough and have large enough gaps to be suitable for more common species of birds to nest within. The site is suboptimal for any schedule 1 species of birds such as barn owls, due to a lack of suitable features within the buildings onsite. Further, the site is also unsuitable for overwintering birds due to the size of the site and lack of suitable habitat.
Invertebrates	There is no suitable ground flora onsite to support any noteworthy assemblages of invertebrates.

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 7 presents an evaluation of the ecological value of the site and also details any ecological constraints identified in relation to the proposed development which will comprise the clearance of the site and erection of several dwelling areas and construction of an access road.

Table 7: Evaluation of the site and any ecological constraints

Feature	Survey Results Summary	Impact Assessment	Recommendations	Biodiversity Enhancement Opportunities ¹
Designated sites	There is a single statutory designated site within 2km of the site, the closest being Highfield Country Park (LNR) located approximately 660m southeast from the site.	No impacts to designated sites are anticipated due to the small scale and distance of the proposed development from such sites (where known) as well as the urban location of the site with surrounding physical barriers.	None.	None.
Habitats and flora	There are no notable habitats within the site but two habitats are present within 2km of the site, the closest	No impacts to any notable habitats are anticipated due to the small scale and distance of the proposed development from such habitats as well as the urban location of the site with surrounding physical barriers.	None.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development:

¹ The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021).

	being Traditional Orchards located approximately 480m north of site. Other habitats within the site are common and widespread and have low ecological value.	Hard standing, unsealed surface, scrub and scattered trees and buildings are to be removed to facilitate the proposed development. Given their low ecological value it and the likelihood of landscaping as part of the development is considered that the proposed development will not result in a loss of biodiversity on the site.		• Native species planting including trees and hedgerows • Incorporation of wildflower meadows in suitable locations onsite • New buildings could incorporate a green roof Species-specific enhancement opportunities are detailed later in this table.
Amphibians	Amphibians, including great crested newts, are unlikely to be utilising the site due to a lack of supporting features and habitats, along with the man made barriers around the boundary of site.	No impacts are anticipated on great crested newt, as a result of the proposed development as this species is considered to be absent from the site.	None.	None.
Reptiles	Reptiles are unlikely to be utilising the site due to a lack of supporting features and habitats, as well as the man made barriers around the boundary of site.	No impacts are anticipated on reptiles as a result of the proposed development.	None.	None.
Roosting bats (Site)	The buildings onsite (save for B3) have negligible value and suitability for roosting bats, due to a lack of suitable roosting features, and constant	The proposed development will result in the demolition of all buildings onsite, which could result in the destruction of any bat roosts onsite. Bats are unlikely to be utilising buildings 1,2,4 and 5, and so there are no impacts to	In the unlikely event that a bat or evidence of bats is discovered within buildings 1,2,4 and 5 during the development all work must stop and a bat licensed ecologist contacted for further advice. As B3 has a low suitability for bats, one bat emergence or re-entry survey is required during	To be confirmed upon completion of the surveys.

	disturbance through lighting, noise and vibrations caused by the workshops onsite. B3 has a low suitability for roosting bats, due to an excess of roosting features, and no internal access to assess the true suitability of the site. This building is also sealed, and so is not subject to the same amount of disturbance and noise as the other buildings onsite.	bats anticipated in the demolition of these buildings. Bats could be utilising B3, and so the demolition of this building could result in the destruction of any bat roosts present.	the active bat season (optimal May to August, suboptimal September) to confirm presence or likely-absence of a bat roost in the building. Infra-red cameras should be used as an aid. Two surveyors are required to provide full coverage of the building. If bat roosts are confirmed in the building two additional surveys may be required to characterise the roost and to inform an EPSL application to Natural England. Surveys should be a minimum of two weeks apart. The EPSL application requires that 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.	
Foraging and commuting bats	There are no 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.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for foraging bats: Planting of native tree, shrub and hedgerows to increase foraging opportunities.
Badger	Badgers are unlikely to be utilising the site due to a lack of supporting features and habitats, as well as the man made barriers around the boundary of site. Similarly, the topography of site	No impacts are anticipated on badgers as a result of the proposed development.	None.	None.

	being flat does not lend it to the construction of setts.			
Hazel dormouse	The site is located outside the known area of any natural or introduced populations of hazel dormice.	No impacts are anticipated on hazel dormice as a result of the proposed development.	None.	None.
Hedgehog	Hedgehogs are unlikely to be utilising the site due to a lack of supporting features and habitats, as well as the man made barriers around the boundary of site.	No impacts are anticipated on hedgehogs as a result of the proposed development.	None.	None.
Riparian mammals	There are no watercourses onsite or within 2km of site. similarly, the man made barriers and urban location of the site would likely mean that any riparian mammals in the area would not be able to access the site.	No impacts are anticipated on otters as a result of the proposed development.	None.	None.
Birds	The buildings onsite have suitability for nesting birds, however it is unlikely that they can support any schedule 1 species such as barn owls.	The buildings onsite will be removed during construction. The loss of which is unlikely to present an issues for the local population of birds. Furthermore, the proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Demolition of the buildings should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged.	The installation of X bird boxes at the site will provide additional nesting habitat for birds. The bird boxes will be installed on new buildings. General purpose bird boxes should be positioned 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight.

				Species-specific bird boxes should be installed in line with manufacturers specifications.
Invertebrates	The species composition of the habitats onsite is poor, and so is unlikely to provide suitable habitats for any noteworthy assemblages of invertebrates.	No impacts are anticipated on notable species or populations of invertebrates as a result of the proposed development.	None.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for invertebrates: • Grassland areas could be incorporated with pollinator friendly species • Insect boxes could be included in the development • Retention of deadwood and scrub in suitable locations onsite • Incorporation of green roofs on new buildings.

5.0 Bibliography

- Biggs, J., Ewald, N., Valentini, A., Gaboriaud, C., Dejean, T., Griffiths, R., Foster, J., Wilkinson, J., Arnell, A., Brotherton, P., Williams, P. and Dunn, F. (2014). Using eDNA to Develop a National Citizen Science-based Monitoring Programme for the Great Crested Newt (*Triturus cristatus*). Biological Conservation. 183. 10.1016/j.biocon.2014.11.029.
- Bright, P., Morris, P., Mitchell-Jones, T. and Wroot, S. (2006). The Dormouse Conservation Handbook Second Edition.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- Chanin, P. (2003). Ecology of the European Otter. Conserving Natura 2000 Rivers Ecology Series No. 10. Natural England, Peterborough.
- 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 (2017). Guidelines on Ecological Report Writing. 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 (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins, J. (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Defra (2007). Hedgerow Survey Handbook. A Standard Procedure for Local Surveys in the UK. Defra, London.
- Edgar, P., Foster, J. and Baker, J (2010). Reptile Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth
<http://downloads.gigil.org.uk/website/Reptile%20Habitat%20Management%20Handbook.pdf>
- Garland, L. & Markham, S. (2008) Is Important Bat Foraging and Commuting Habitat Legally Protected?
<http://biodiversitybydesign.co.uk/cmsAdmin/uploads/protection-for-bat-habitat-sep-2007.pdf>
- Gent, T. and Gibson, S. (2003). Herpetofauna Workers' Manual. JNCC, Peterborough.
- Gilbert, G., Gibbons, D.W., and Evans, J. (1998) Bird Monitoring Methods: A Manual of Techniques for UK Key Species. The Royal Society for the protection of Birds, Sandy, Bedfordshire, England.
- Google Earth. Accessed on 23-5-23.

- Harris, S., Cresswell, P. and Jefferies, D.J. (1989). Surveying badgers. Mammal Society, London.
- HMSO: Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 <https://www.legislation.gov.uk/ukxi/2019/579/contents/made>
- 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 Protection of Badgers Act 1992 (as amended) <http://www.legislation.gov.uk/ukpga/1992/51/contents>
- HMSO: Wildlife and Countryside Act 1981 (as amended 01.04.1996) <http://jncc.defra.gov.uk/page-1377>
- Institution of Lighting Professionals (2018). Guidance Note 08/18 Bats and Artificial Lighting in the UK. Bats and the Built Environment Series Publication: http://www.bats.org.uk/news.php/406/new_guidance_on_bats_and_lighting.
- JNCC (2004). Bat Workers Manual, 3rd Edition. <http://jncc.defra.gov.uk/page-2861>
- Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey a technique for environmental audit. http://jncc.defra.gov.uk/PDF/pub10_handbookforphase1habitatsurvey.pdf
- Langton, T., Beckett, C. and Foster, J (2001). Great Crested Newt Conservation Handbook. Froglife. Suffolk. http://www.froglife.org/wp-content/uploads/2013/06/GCN-Conservation-Handbook_compressed.pdf
- Magic Database. <http://www.magic.gov.uk/MagicMap.aspx> Accessed on 23-5-23.
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
- National Planning Policy Framework (2021). <https://www.gov.uk/government/publications/national-planning-policy-framework--2>
- Natural England Designated Sites View. <https://designatedsites.naturalengland.org.uk/SiteSearch.aspx> Accessed on 23-5-23.
- Natural England (2005). Organising Surveys to Determine Site Quality for Invertebrates: A Framework Guide for Ecologists. Natural England, Peterborough.
- Natural England (2007). Badgers and Development a Guide to Best Practice and Licensing. Natural England. Bristol. <http://www.wildlifeco.co.uk/wp-content/uploads/2014/03/badgers-and-development.pdf>
- Oldham R.S., Keeble J., Swan M.J.S. and Jeffcote M. (2000). Evaluating the Suitability of Habitat for the Great Crested Newt (*Triturus cristatus*). Herpetological Journal 10(4), 143-155. <https://www.thebhs.org/publications/the-herpetological-journal/volume-10-number-4-october-2000/1617-03-evaluating-the-suitability-of-habitat-for-the-great-crested-newt-triturus-cristatus/file>
- Panks, S., White., N., Newsome, A., Potter, J., Heydon, M., Mayhew, E., Alvarez, M., Russell, T., Scott, S.J., Heaver, M., Scott, S.H., Treweek, J., Butcher, B. and Stone, D. (2021). Biodiversity Metric 3.0: Auditing and Accounting for Biodiversity – Technical Supplement. Natural England.

- Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* 114: 723-747.
- Strachan, R., Moorhouse, T. and Gelling, M. (2011). *Water Vole Conservation Handbook*. Third Edition. Wildlife Conservation Research Unit, Oxford.
- UK Habitat Classification Working Group (2018). UK Habitat Classification User Manual at <http://ecountability.co.uk/ukhabworkinggroup-ukhab>
- Wray, S., Wells, D., Long, E. and Mitchell-Jones, T (2010). Valuing Bats in Ecological Impact Assessment. *IEEM In-Practice*. Number 70 (December 2010). Pp. 23-25.

Appendix 1: Proposed Development Plan



Appendix 2: Site Location Plan



Appendix 3a: Habitat Survey Plan



Appendix 3b: PRA Plan



Appendix 3c: Proposed BERS 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

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A development licence will be required from the relevant countryside agency (i.e. Natural England) 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 kill, injure or take any wild bird
- Intentionally take, damage or destroy 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.

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

EFFECT OF LEGISLATION AND POLICY 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.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England) 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

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

If development works are likely to affect habitats known to support water voles, the relevant countryside agency (i.e. Natural England) 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

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England) 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

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England) 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 EPSL. 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

EFFECT OF LEGISLATION AND POLICY 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). 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

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

The relevant countryside agency (i.e. Natural England) 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 picking, uprooting or destruction of any wild Schedule 8 species
- 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.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) will be required from the relevant countryside agency (i.e. Natural England) for works which are likely 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 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*

EFFECT OF LEGISLATION AND POLICY 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*

EFFECT OF LEGISLATION AND POLICY 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

Environment Act 2021

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:

- 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.