



Preliminary Ecological Appraisal and Preliminary Roost Assessment

The Former Anchor Inn Public House, 80 Main Street, Gunthorpe, Nottingham

NG14 7EU

Mica Redd Ltd

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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.

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

Arbtech Consulting Limited was instructed by Mica Redd Ltd to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at The Former Anchor Inn Public House, 80 Main Street, Gunthorpe, Nottingham, NG14 7EU (hereafter referred to as “the site”). The survey was required to inform a planning application to demolish the existing premises and erection of mixed-use development with associated car parking and landscaping (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 8 of this report.

<i>Feature</i>	<i>Foreseen impacts</i>	<i>Recommendations Measures required to adhere to guidance, legislation and planning policies.</i>
B1	The proposed development will result in the demolition of this building. This could result in destruction of any bat roosts present and could cause disturbance, death or injury to bats.	Three bat emergence and re-entry surveys are required during the active bat season (May –September) to confirm presence or likely absence of a bat roost in the building.
B2	The proposed development will result in the renovation and repairs to this building. This could result in damage of any bat roosts present and could cause disturbance, death or injury to bats.	Three bat emergence and re-entry surveys are required during the active bat season (May –September) to confirm presence or likely absence of a bat roost in the building.
B3	The proposed development will result in the renovation and repairs to this building. This could result in destruction of any bat roosts present and could cause disturbance, death or injury to bats.	Three bat emergence and re-entry surveys are required during the active bat season (May –September) to confirm presence or likely absence of a bat roost in the building. An EPSL application to Natural England will be required. 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.
Amphibians	Scrub will be removed during construction. The loss of such habitats is likely to be inconsequential to local amphibian populations owing to the presence of more extensive habitat locally. However, site clearance could result in the death or injury of amphibians, if present.	A precautionary working method will be implemented, as outlined in Table 8.
Reptiles	Scrub and unmanaged grassland will be removed during construction. The loss of such habitats is likely to be inconsequential to local reptile populations owing to the presence of more extensive habitat locally. However, site clearance could result in the death or injury of reptiles, if present.	A precautionary working method will be implemented, as outlined in Table 8.

Hedgehog	Scrub and hedgerows will be removed during construction. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to the presence of more extensive habitat locally.	A precautionary working method will be implemented, as outlined in Table 8.
Birds	Scrub, hedgerows, trees and buildings will be removed during construction. The loss of such habitats is likely to be inconsequential to local bird populations owing to the presence of more extensive habitat locally. However, the proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	A precautionary working method will be implemented, as outlined in Table 8.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Mica Redd Ltd to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at The Former Anchor Inn Public House, 80 Main Street, Gunthorpe, Nottingham, NG14 7EU (hereafter referred to as “the site”). The survey was required to inform a planning application to demolish the existing premises and erection of mixed-use development with associated car parking and landscaping (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 Context

The site is located at National Grid Reference SK 68202 43858 and has an area of approximately 0.3ha comprising three buildings, a hardstanding car park, amenity grassland, scattered trees, hedgerows and small areas of scrub. 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 2km radius review of statutory designated sites and notable habitats as well as a 2km radius review of granted European Protected Species Licence (EPSL) and notable species records held on magic.gov.uk database. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS maps.

2.2 Field Survey

The survey was undertaken by Matthew Edwards: accredited agent to Natural England bat licence: 2016-22119-CLS-CLS on the 14th July 2022.

Preliminary Ecological Appraisal

An extended habitat survey was undertaken, following the methodology set out in *Phase 1 Habitat Survey Methodology* (JNCC, 2010). 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 three built structures and all trees on site 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. 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
Moderate to high	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.
Low	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.

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. However, BRD will be required to inform a European Protected Species License.

False ceilings are present within B1 and B2 that obstructed access into the loft voids.

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 Desk Study Results

A summary of desk study results is provided below.

Designated Sites

No statutory designated sites were identified within 2km of the site. Non statutory designated sites were identified using Nottinghamshire Insight Mapping (2022) and identified six Local Wildlife Sites (LWS) within 2km.

Table 3: Non-statutory designated sites within 2km radius of the site.

<i>Designated site name</i>	<i>Closest distance from site</i>
Gunthorpe Riverside Gravel Pit LWS	100m west
River Trent LWS	140m south-west
Trent Hills Wood, East Bridgford LWS	600m south-east
Gunthorpe Lakes LWS	710m west
Shelford Carr LWS	860m west

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 site is in a rural area of Nottinghamshire. The landscape is dominated by large arable fields, with the village of Gunthorpe located adjacent to the north of the River Trent. There are small, scattered woodland copses and tree lines around the area which could be used by wildlife for shelter, foraging and commuting. Furthermore, Coastal and Floodplain Grazing Marsh, and Lowland Fens could provide excellent habitat for wildlife. The River Trent located to the south will provide excellent commuting and foraging opportunities for wildlife. Scattered irrigation ditches around the area will provide abundant insect foraging for birds and bats.

Notable Habitats

Notable habitats within 2km are listed in Table 4.

Table 4: Notable habitats within 2km of the site.

<i>Habitat</i>	<i>Closest distance from site</i>
Deciduous Woodland	120m west
Coastal and Floodplain Grazing Marsh	200m south
Lowland Fens	280m south-east
Traditional Orchards	380m north

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 5.


Table 5: Weather conditions during the survey

Date: 14/07/2022	
Temperature	20°C
Humidity	56%
Cloud Cover	20%
Wind	2mph
Rain	None


Habitats and Flora

A description and photograph of each habitat is provided in Table 6. No protected or non-native invasive plant species were identified on the site.

Table 6: Description and photographs of habitats within and adjacent to the site

Habitat Type	Habitat description	Photograph
J4 Bare Ground	Pictured opposite showing the site south of the main bui (B1). It is comprised of hard standing car parking.	 A photograph showing a gravel car parking area in the foreground. In the background, there is a large white building with a sign that reads 'Anchor Inn'. To the right, there are trees and a smaller white structure. The sky is blue with some clouds. A timestamp '14/07/2022 12:29' is visible in the bottom right corner of the photo.


<p>J4 Bare Ground & J2.3.2 species poor hedgerow with trees</p>	<p>The picture opposite shows the continuation of hard standing to the east of the site. There are two hedgerows that have not been maintained. Species include <i>Pyracantha</i> sp., ash, berberis and hawthorn. Dieback is present within the hedgerows. Located within the hedgerow are four silver birch trees.</p>	
<p>B6 Poor semi-improved grassland</p>	<p>A small area of previously managed amenity grassland located to the north of the hardstanding car park and south of B1. The species composition is poor, comprised of perennial ryegrass and common ragwort.</p>	



<p>A2.2 Scattered scrub</p>	<p>There are small areas of scrub located to the north, east and west of B2. Scrub is comprised of bramble and common nettle.</p>	 <p>A photograph showing a dense area of green scrub vegetation, including brambles and nettles, growing in front of a brick building. A wooden fence is visible on the left side of the image. The date '14/07/2022 12:34' is visible in the bottom right corner.</p>
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Bats



The results of the PRA are provided in Table 7.



Table 7: Assessment of the suitability of the site for bats



Feature Ref	Description	Photographs
<p>B1 (exterior) Northern and western elevations</p>	<p>B1 is a two-storey brick-built building with a cross-pitched gabled roof clad in slate roof tiles. The roof tiles and lead flashing are raised and missing in places creating suitable bat roost sites for crevice dwelling and void dwelling bats. Missing mortar is located at the eaves of the northern gable end that could be utilised by crevice dwelling bats such as common pipistrelle bats. Furthermore, missing mortar on the chimney could also be utilised by crevice dwelling bats. B1 is connected to B2 on its eastern elevation; connecting corridor between B1 and B2 is comprised of a mono-pitched roof clad in corrugated roof that provides no suitable features for bats.</p>	 <p>A photograph of a two-storey brick building with a gabled roof, situated on a street. The building has a mix of brick and white-painted sections. A red door is visible on the left. The date '14/07/2022 11:27' is visible in the bottom right corner.</p>



<p>B1 (exterior) Northern elevation (pictured opposite).</p>	<p>Red arrows opposite showing missing mortar at the eaves of the northern gable end. These areas could be utilised by crevice dwelling bats.</p>	
<p>B1 (exterior) Western elevations (pictured opposite).</p>	<p>Red arrow opposite showing missing mortar along ridge line that could provide suitable roosting feature for crevice dwelling bats. Yellow arrows showing lifted and missing roof tiles that could provide roosting features for crevice and internal access for void dwelling bats.</p>	



<p>B1 (exterior) Southern and western elevations (pictured opposite).</p>	<p>The yellow arrow opposite showing raised lead flashii that could be utilised by crevice dwelling bats. The red arrow showing missing mortar between brickwork on the chimney that could be utilised by crevice dwelling bats.</p>	
<p>B1 (exterior) Southern elevation (pictured opposite).</p>	<p>The red arrow opposite showing loose ridge tiles that could provide entrance into the sub-space of intact ridge tiles which could be utilised by crevice dwelling bats.</p>	

<p>B1 (exterior) Southern elevations (pictured opposite).</p>	<p>Red arrows opposite showing raised tiles that could be utilised by crevice dwelling bats.</p>	 <p>A photograph of the exterior of the building showing the roofline. Two red arrows point to raised tiles on the roof. The building has a light-colored facade and a window. The sky is overcast. A timestamp '14/07/2022 11:52' is visible in the bottom right corner.</p>
<p>B1 (interior)</p>	<p>The loft space is built from modern timber including the ridge beam. The roof is not lined, reducing its suitability for crevice dwelling bats as there is no roof sub-space for bats to utilise. The floor of the loft is lined with fibreglass insulation throughout. There are cobwebs around the ridge beam indicating a lack of internal flying activity from void dwelling bats, such as brown long-eared bats.</p>	 <p>An interior photograph of the loft space. It shows a timber roof structure with a ridge beam. The floor is lined with fibreglass insulation. There are cobwebs visible around the ridge beam. A timestamp '14/07/2022 11:38' is visible in the bottom right corner.</p>

B1 (interior)	The picture opposite showing cobwebs along the ridge line.	 A photograph showing the interior of a roof ridge. The wooden rafters are visible, and there are cobwebs hanging from the ridge line. The roof is covered with dark tiles. A timestamp '14/07/2022 11:38' is visible in the bottom right corner.
B2 (exterior) Southern and western elevations (pictured opposite)	B2 is a single storey brick-built building with a gabled roof clad in clay roof tiles. The roof tiles are raised and missing in places creating suitable bat roost sites for crevice dwelling and void dwelling bats. Waney edge timbe boards are located above windows that could be utilised by crevice dwelling bats.	 A photograph of a single-storey brick building with a gabled roof and a chimney. The roof is covered in red clay tiles. The building is surrounded by tall grass and a fence. A timestamp '14/07/2022 11:52' is visible in the bottom right corner.

<p>B2 (exterior) Eastern elevation (pictured opposite)</p>	<p>The red arrow opposite showing missing tiles that could provide entrance into the roof void for void dwelling bats. Wane edge timber boards above windows provide roosting features for bats to utilise (yellow opposite).</p>	
<p>B2 (exterior) western elevation (pictured opposite)</p>	<p>The red arrow opposite showing missing tiles that could be utilised by bats. The yellow arrows showing wane edged timber boards that could be utilised by crevice dwelling bats.</p>	

<p>B2 (interior)</p>	<p>There was no access into the loft void of B2.</p>	
<p>B3 (exterior) southern elevation (pictured opposite)</p>	<p>B3 is a detached single-storey brick-built building with a gabled roof clad in clay roof tiles. The roof tiles are raised in places throughout creating suitable bat roost sites for crevice and void dwelling bats. There was no access to the northern elevation, however, internally there are missing tiles that provide entrance into the loft void.</p>	

<p>B3 (interior)</p>	<p>The loft space is built from modern timber including the ridge beam. The roof is lined and could provide suitability for crevice dwelling bats externally are loose fitting with gaps. There was one brown long-eared bat seen roosting above a pile of droppings located to the west of the building. The number of droppings and bats present is indicative of a day roost of brown long-eared bats. As the photo shows opposite, the bat is roosting on the ridge line.</p>	
<p>B3 (interior)</p>	<p>Bat droppings located below the single brown long-eared bat. There were approximately 60 droppings located in two separate locations of the loft void. The droppings were all fresh and could indicate the roost is recent and used as a day roost by a single or small numbers of bats.</p>	

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 8 presents an evaluation of the ecological value of the site and also details any ecological constraints identified in relation to the proposed development.

Table 8: Evaluation of the site and any ecological constraints.

<i>Ref</i>	<i>Summary of Survey Findings</i>	<i>Foreseen Impacts</i>	<i>Recommendations</i> <i>Measures required to adhere to guidance, legislation and planning policies.</i>	<i>Biodiversity Enhancements</i> <i>The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021)</i>
Designated sites	There are no statutory designated sites within 2km of the site. There are five non-statutory sites within 2km of the site, the closest being Gunthorpe Riverside Gravel Pit LWS located 100m from the site.	No impacts to designated sites are anticipated due to the small scale ; distance of the proposed development from such sites 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 Deciduous Woodland, Coastal and Floodplain Grazing Marsh, Lowland Fens, Traditional Orchards habitats are present within 2km of the site, the closest being deciduous woodland located 120m from the site. Other habitats within the site are common and widespread and have low ecological value.	No impacts to any notable habitats ; anticipated due to the small scale ; distance of the proposed development from such habitats as well as the urban location of the site with surrounding physical barriers. The loss of common and widespread habitats of low ecological value from the site are considered to be inconsequential.	None.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development: Native tree, hedgerow and shrub planting. Creation of wildflower grassland.
Amphibians	The site contains a small area of scrub that is suitable terrestrial habitat for amphibian foraging,	Scrub will be removed during construction. The loss of such habitats is likely to be inconsequential to local amphibian populations owing to the presence of more extensive habitat	Owing to the nature of the proposed development and the low potential for impacts to great crested newts, further surveys are considered disproportionate. A precautionary working method will be implemented for common	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which

	<p>commuting, and refuge. However, there are no ponds within 500m of the development area. Therefore, GCN are anticipated to be absent.</p>	<p>locally. However, site clearance could result in the death or injury of amphibians, if present.</p>	<p>amphibians during construction, including the following measures: 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 maintained at this level for the duration of construction to deter amphibians from the working area. Debris and brash will be stored on pallets or removed from the site to prevent amphibians from utilising these areas. Any chemicals or pollutants used on site 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 advice must be sought from a suitably qualified ecologist.</p>	<p>would be beneficial for amphibians: The creation of a wildlife 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.</p>
<p>Reptiles</p>	<p>The site provides a small area of reptile habitat.</p>	<p>Scrub and unmanaged grassland will be removed during construction. The loss of such habitats is likely to be inconsequential to local reptile populations owing to the presence of more extensive habitat locally. However, site clearance could result in the death or injury of reptiles, if present.</p>	<p>Owing to the nature of the proposed development and the low potential for impacts to reptiles, further surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures: Site clearance will be undertaken outside of the reptile hibernation season (November to February) insofar as possible. A staged approach will be adopted for vegetation clearance, whereby the vegetation will be strimmed to 15cm and</p>	<p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for reptiles: The creation of a wildlife pond for wildlife to include native plant species and no fish. Creation of reptile refugia and hibernacula using debris and brash from site clearance.</p>

			<p>left overnight to allow any reptiles to disperse. The vegetation can then be cleared to ground level and maintained at this level for the duration of construction to deter reptiles from the working area.</p> <p>Debris and brash will be stored on pallets or removed from the site to prevent reptiles from utilising these areas.</p> <p>Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.</p> <p>In the unlikely event that a reptile is identified, works must cease and advice must be sought from a suitably qualified ecologist.</p>	Planting of native scrub and grassland to increase foraging opportunities.
Roosting bats (B1)	The building has a high habitat value for supporting roosting bats. Crevice dwelling bats could roost in gaps under roof tiles, missing mortar and raised lead flashing. There are excellent foraging and commuting resources in close proximity.	The proposed development will result in the demolition of this building. This could result in destruction of any bat roosts present and could cause disturbance or death or injury to bats.	<p>Three bat emergence and re-entry surveys are required during the active bat season (May – September) to confirm presence or likely absence of a bat roost in the building. At least two of the surveys should be completed during the optimal survey period mid-May to August inclusive. One of these surveys must be a dawn re-entry survey.</p> <p>Four surveyors are required to provide full coverage of the building.</p> <p>Surveys are likely to be required before planning permission can be granted.</p> <p>If bat roosts are confirmed in the building an EPSL application to Natural England will be required. 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.</p>	To be confirmed upon completion of the surveys.
Roosting bats (B2)	The building has a high habitat value for supporting roosting	The proposed development will result in the renovation and repairs to this building. This could result in damage of any	Three bat emergence and re-entry surveys are required during the active bat season (May – September) to confirm presence or likely absence	To be confirmed upon completion of the surveys.

	<p>bats. Crevice dwelling bats could roost in gaps under roof tiles, missing mortar and raised lead flashing. Furthermore, void dwelling bats could access the roof void from missing roof tiles. There are excellent foraging and commuting resources in close proximity.</p>	<p>roosts present and could cause disturbance, death or injury to bats.</p>	<p>of a bat roost in the building. At least two of the surveys should be completed during the optimal survey period mid-May to August inclusive. One of these surveys must be a dawn re-entry survey. Two surveyors are required to provide full coverage of the building. Surveys are likely to be required before planning permission can be granted. If bat roosts are confirmed in the building an EPSL application to Natural England will be required. 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.</p>	
<p>Roosting bats (B3)</p>	<p>The building is a confirmed roost as a single brown long-eared bat was located within the loft void with associated accumulation of droppings below the ridge line. Furthermore, crevice dwelling bats could also roost in gaps under roof tiles. There are excellent foraging and commuting resources in close proximity.</p>	<p>The proposed development will result in the renovation and repairs to this building. This could result in destruction of any bat roosts present and could cause disturbance, death or injury to bats.</p>	<p>Three bat emergence and re-entry surveys are required during the active bat season (May – September) to characterise the roosts present. At least two of the surveys should be completed during the optimal survey period mid-May to August inclusive. One of these surveys must be a dawn re-entry survey. Three surveyors are required to provide full coverage of the building. Surveys are likely to be required before planning permission can be granted. An EPSL application to Natural England will be required. 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.</p>	<p>To be confirmed upon completion of the surveys.</p>
				

	e.g. foraging and refuge.			
Hedgehog	The site provides suitable habitat for hedgehogs.	Scrub and hedgerows will be removed during construction. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to the presence of more extensive habitat locally.	A precautionary working method will be implemented during construction, including the following measures: Site clearance will be undertaken outside of the hedgehog hibernation season (November to March) insofar as is possible. A pre-commencement inspection of the site will be undertaken for hedgehogs. Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape. The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use. Any chemicals or pollutants used created by the development should be stored and disposed of correctly according to COSHH regulations. In the unlikely event that a hedgehog is identified, works must cease and advice must be sought from a suitably qualified ecologist.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs: Planting fruit bearing trees and species-rich grassland to increase foraging opportunities. Creation of brush piles or installation of hedgehog houses in shady areas. Installation of gaps under boundary fencing to enable hedgehogs to move freely through the site.
Otter	No suitable habitat.	No impacts are anticipated on otters as a result of the proposed development.	None.	None.
Water vole	No suitable habitat.	No impacts are anticipated on water voles as a result of the proposed development.	None.	None.
Birds	No evidence of nesting birds was found during the survey. However birds could use vegetation on site for nesting and gaps in	Scrub, hedgerows, trees and buildings will be removed during construction. The loss of such habitats is likely to be inconsequential to local bird populations owing to the presence of more extensive habitat locally.	Works should be undertaken outside the period 1st March to 31st August. If this time cannot be avoided, a close inspection of the building, trees, scrub and hedgerows should be undertaken immediately, by a qualified ecologist, prior to the commencement of work. All active	The installation of a minimum of six bird boxes on mature trees around the site boundaries or on retained buildings will provide additional nesting habitat for birds e.g.

	<p>the roof of all the buildings.</p>	<p>However, the proposed development could result in the destruction of disturbance and subsequent abandonment of active bird nests.</p>	<p>nests will need to be retained until the young have fledged.</p>	<p>Schwegler No 17 Swift Nest Box (buildings) Schwegler 1SP Sparrow Terrace (buildings) Schwegler 1B Nest Boxes (trees) Schwegler 2H Robin Boxes (trees) Woodstone Nest Box (building or trees) Or a similar alternative brand. Tree boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain & strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the trunk where foliage will not obscure the entrance hole. Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.</p>
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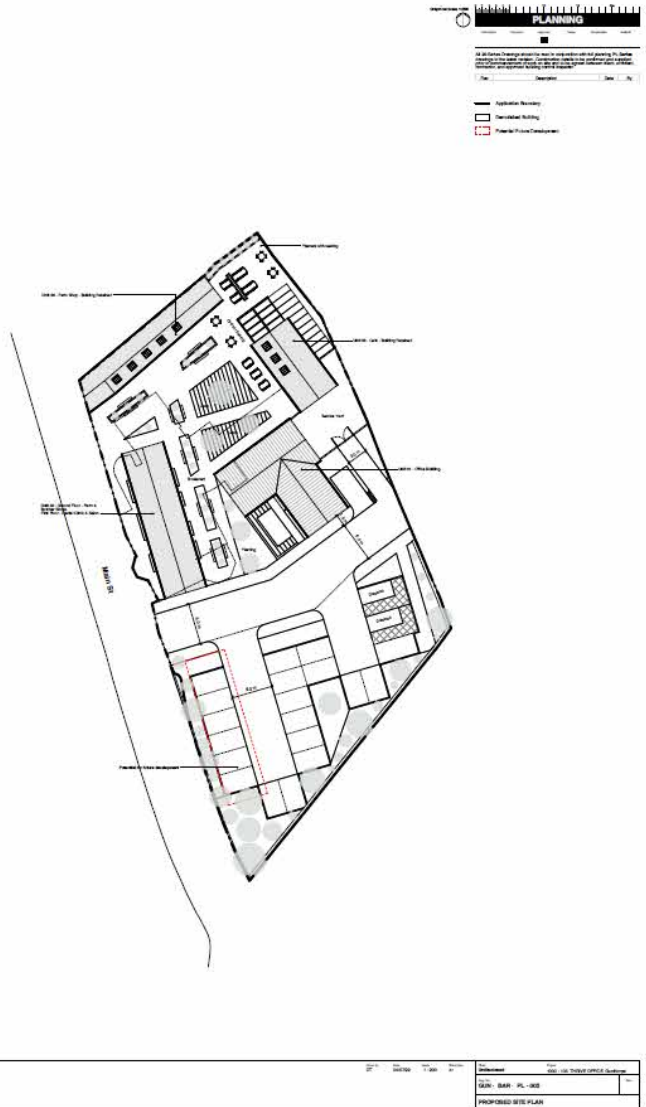
5.0 Bibliography

- 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.
- Eaton, M.A., Aebischer, N.J., Brown, A.F., Hearn R.D., Lock, L., Musgrove, A.J., Noble, D.G., Stroud, D.A. and Gregory, R.D. (2015). *Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man*. *British Birds* 108, 708-746
- Edgar, P., Foster, J. and Baker, J (2010). *Reptile Habitat Management Handbook*. Amphibian and Reptile Conservation, Bournemouth
<http://downloads.gigl.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 22/07/2022.
- [REDACTED]
- HMSO: Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 <https://www.legislation.gov.uk/uksi/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>
- [REDACTED]
- 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 22/07/2022.
- 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 22/07/2022.
- Natural England (2005). Organising Surveys to Determine Site Quality for Invertebrates: A Framework Guide for Ecologists. Natural England, Peterborough.
- [REDACTED]
- 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.
- 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



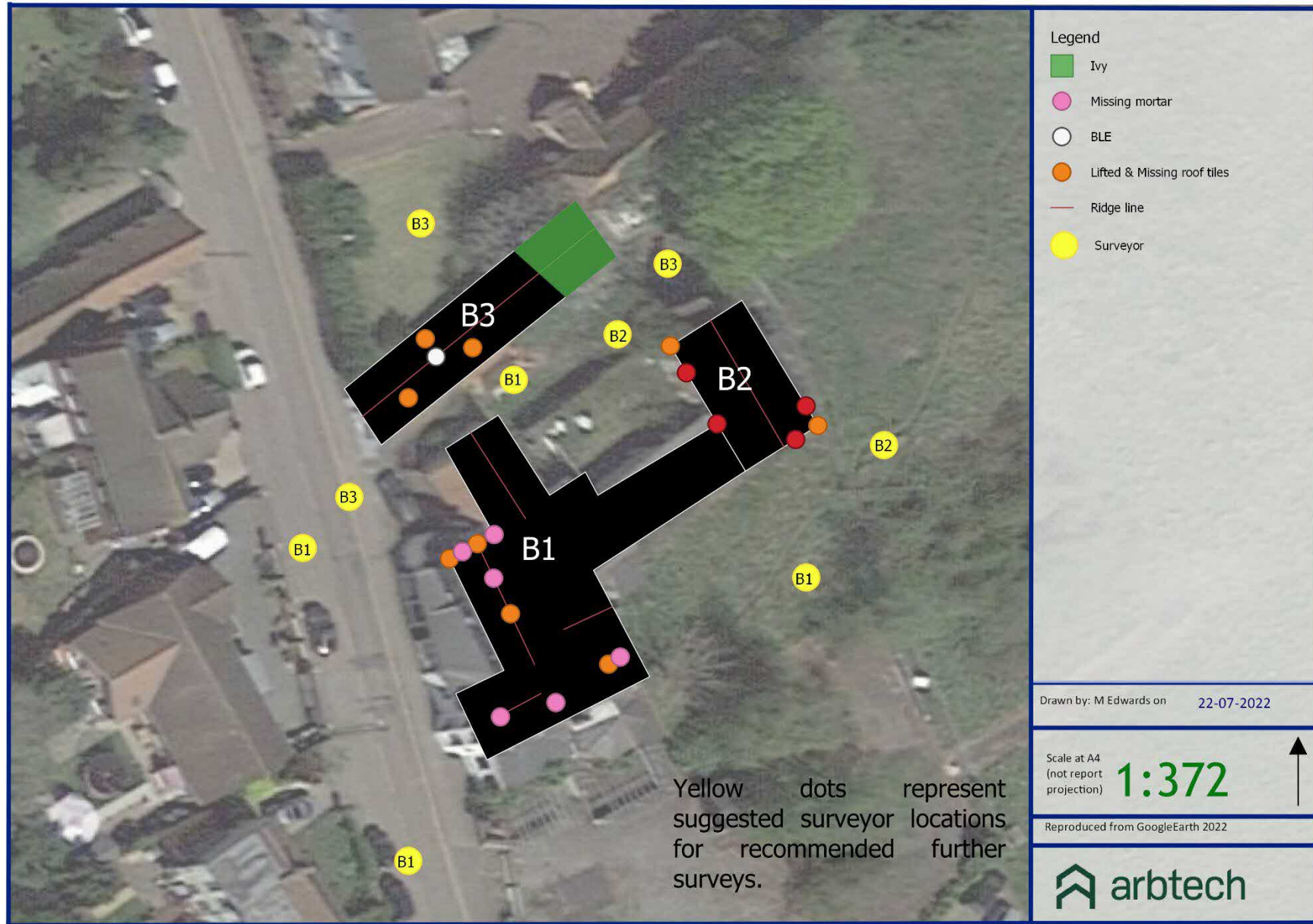
Appendix 2: Site Location Plan



Appendix 3a: Habitat Survey Plan



Appendix 3b: PRA 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
- [REDACTED]
- Wild Mammals (Protection) Act 1996

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

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.