



# Preliminary Ecological Appraisal and Preliminary Roost Assessment

Zed Pods Ltd

School Close, Bampton, Mid Devon, EX16 9NN (ZedPods ref. Z27)

Status	Issue	Name	Date
Draft	1	Merry Anderson BA(Hons) Consultant Ecologist Bat Level 2 Survey Class Licence CL18	09/12/2022
Final	2	Merry Anderson BA(Hons) Consultant Ecologist Bat Level 2 Survey Class Licence CL18	12/12/2022

Arbtech Consultant's Contact Details:

Merry Anderson  
Ecologist

<https://arbtech.co.uk>

## Limitations and Copyright

Arbtech Consulting Limited has prepared this report for the sole use of the above-named client or their agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

© This report is the copyright of Arbtech Consulting Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.

## 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)

## Devon Wildlife Checklist (for front of Wildlife Report.)

### A.1 Protected and priority species (relates to question 13a in the planning application form).

**A tick or cross must be placed in all boxes in column two (shaded) and then, where there is a tick, all other boxes in that row. Where species are present please email this form to Devon Biodiversity Records Centre - [DBRC@dbrc.org.uk](mailto:DBRC@dbrc.org.uk).**

**Location: School Close, Bampton, Mid Devon, EX16 9NN Grid reference for centre of site (6 digit): SS95452216 Planning Application reference: N/A**

**Name of surveyor and consultancy: Merry Anderson Arbtech Consulting Date that surveys carried out: 30/11/2022 Sent to DBRC: n**

Species - terrestrial, intertidal, marine	Walkover shows that suitable habitat present and reasonably likely that the species will be found? <u>Tick or cross</u>	Detailed survey needed to clarify impacts and mitigation requirements?	Detailed survey carried out and included ?	Species Present or Assumed to be present on site <u>Indicate with P or A and name the species</u>	Impact on species?	Detailed Conservation Action Statement included?  Sets out actions needed in relation to avoidance / mitigation / compensation / enhancement	EPS offence committed? Three tests met?	Grid reference for specific location of species (if required for large sites)
<b>Bats (roost)</b>	y	Y emergence surveys	n	A	Demolition of building/loss of potential roost habitat	Awaiting survey results	n/a	n/a
<b>Bats (flight line / foraging habitat)</b>	y	n	n/a	A	Light spill from construction works and post development	Low impact lighting strategy to be implemented.		
<b>Dormice</b>	x							
<b>Otters</b>	x							
<b>Great crested newts (*check consultation zone)</b>	x							
<b>Cirl buntings (*check consultation zone)</b>	x							
<b>Barn owls</b>	x							
<b>Other Schedule 1 birds</b>	x							
<b>Breeding birds</b>	y	n	n	P	Loss of foraging and nesting habitat	Nesting bird check if works carried out within the breeding season	n/a	n/a
<b>Reptiles</b>	y	y	n	A	Loss of shelter, foraging and basking habitat	Awaiting survey results		
<b>Native crayfish</b>	x							
<b>Water voles</b>	x							
<b>Badgers</b>	n							
<b>Other protected species</b>	x							
<b>UK BAP priority species</b>	Y hedgehog	n	n	a	Loss of foraging habitat, injury or death during construction	Precautionary working method to be adopted. Enhancement of retained habitat.		
<b>Devon BAP key species</b>	x							
<b>Invasive species</b>	Y cotoneaster horizontalis	n	n	P	n/a	Method statement for safe removal/disposal		

**A.2** Designations / important habitats / sites of geological importance (relates to questions 13 b & c in the planning application form) A tick or cross must be placed in all boxes in column two and then, where there is a tick, all other boxes in that row.

<b>Designation</b>	<b>Within site or potential impact.</b> <i>Tick or cross</i>	<b>Name of site / habitat</b>	<b>Detailed Conservation Action Statement included in report ?</b>	<b>Habitat balance sheet included (showing area of habitats lost, gained and overall net gain)</b>	<b>Relevant organisation consulted &amp; response included in the application?</b>
<b>Terrestrial, intertidal, marine</b>					
<b><i>Statutory designations</i></b>					
European designations - Special Area of Conservation (SAC), Special Protection Area (SPA) and RAMSAR site or within Greater Horseshoe consultation zone	x				
Site of Special Scientific Interest (SSSIs)	x				
Marine Conservation Zone (MCZ) ( <i>not before 2012</i> )	x				
Local Nature Reserve (LNR)	x				
<b><i>Non statutory wildlife designations</i></b>	unknown				
County Wildlife Site (CWS)	x				
Ancient Woodland	x				
Ancient Trees	x				
Special Verge	x				
UK BAP Priority habitat	x				
Local Biodiversity Network (mapped by Devon Wildlife Trust / through Green Infrastructure work)	x				
<b><i>Non statutory geological designation</i></b>					
County Geological Site (CGS or RIGS)	x				

## Executive Summary

Arbtech Consulting Limited was instructed by Zed Pods Ltd to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at School Close, Bampton, Mid Devon, EX16 9NN (hereafter referred to as “the site”). The survey was required to inform a planning application for the demolition of existing houses and the construction of two and three-storey houses (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.

Feature	Foreseen impacts	Recommendations Measures required to adhere to guidance, legislation and planning policies.
Habitats and flora	<p>No impacts to any notable habitats are anticipated due to the distance of the proposed development from such habitats as well as the urban location of the site with surrounding physical barriers.</p> <p>The proposed development will result in the loss of 3.375ha of low value grassland and various ornamental trees, hedgerows and shrubs within the existing gardens, many of which are non-native. However, this will be compensated by the enhancement of the site to include good quality amenity grassland and flower rich perennial planting totally 2.18ha, 12 native trees planted as standards and 170m<sup>2</sup> of species rich hedgerow. This is likely to result in a net gain in biodiversity.</p> <p>Construction could result in the spread of cotoneaster horizontalis.</p>	<p>Best practice measures to minimise the possibility of pollution and tree damage must be implemented during construction.</p> <p>A Biodiversity Net Gain (BNG) Assessment will be conducted to ensure that the proposed development achieves BNG.</p> <p>An Arboricultural Assessment to determine impacts on trees will be conducted to ensure root protection zones on retained trees and surrounding trees are not impacted.</p> <p>Cotoneaster should be dug up, including roots, and disposed of in line with appropriate controlled waste measures.</p>
Amphibians	<p>The proposed development will result in the loss of the small ornamental ponds and the surrounding stone-faced grass embankment, shrubs and hedgerows that will be used as terrestrial habitat.</p> <p>The loss of such habitats is likely to be inconsequential to local amphibian populations owing to their low value and the presence of more extensive habitat locally. However, site clearance could result in the death or injury of amphibians, if present.</p>	<p>A precautionary working method will be implemented for common amphibians during construction, details are shown in Table 8.</p>
Reptiles	<p>3.375ha of low value grassland, including the stone-faced grass embankments, shrubs and hedgerows will be removed during construction. This will result in the loss of habitat for basking, foraging and</p>	<p>Reptile surveys will be required to determine presence or likely absence of reptiles on the site. Survey effort will be concentrated on the gardens with high value habitat, being the garden of plot 1 to the east and plot 4 to the</p>

	sheltering reptiles. Site clearance could result in the death or injury of reptiles, if present.	west of the site. Surveys will comprise the deployment and monitoring of artificial refugia over seven visits and such surveys must be undertaken between April, May and September, in accordance with current survey guidelines (Gent & Gibson, 2003). The surveys are likely to be required before planning permission can be granted.
Roosting bats B1	The proposed development will result in the demolition of this building. This could result in the destruction of any bat roosts present and could cause disturbance, death or injury to bats.	Two bat emergence and re-entry surveys are 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. Both of the surveys should be completed during the optimal survey period mid-May to August inclusive. One of these surveys should be a dawn re-entry survey or infra-red cameras should be used as an aid. Surveys should be a minimum of two weeks apart. Three 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 one additional survey will be required to inform an EPSL application to Natural England. 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.
Roosting bats B2	The proposed development will result in the demolition of this building. This could result in the 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 (optimal May to August, suboptimal 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 should be a dawn re-entry survey or infra-red cameras should be used as an aid. Surveys should be a minimum of two weeks apart. Four 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 surveys have been undertaken within the most

		<p>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>A Material Changes Check will be required within three months of the EPSL submission, if no survey work has been undertaken within that period. If bat droppings were found during the PRA, a sample will need to be sent off for DNA analysis to confirm the bat species present, to inform the EPSL application.</p>
Roosting bats B3	The proposed development will result in the demolition of this building. This could result in the destruction of any bat roosts present and could cause disturbance, death or injury to bats.	<p>Two bat emergence and re-entry surveys are 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. Both of the surveys should be completed during the optimal survey period mid-May to August inclusive.</p> <p>One of these surveys should be a dawn re-entry survey or infra-red cameras should be used as an aid. Surveys should be a minimum of two weeks apart.</p> <p>Three surveyors are required to provide full coverage of the building. If bat roosts are confirmed in the building one additional survey will be required to inform an EPSL application to Natural England</p>
Roosting bats B4	The proposed development will result in the demolition of this building. This could result in the destruction of any bat roosts present and could cause disturbance, death or injury to bats.	<p>Two bat emergence and re-entry surveys are 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. Both of the surveys should be completed during the optimal survey period mid-May to August inclusive.</p> <p>One of these surveys should be a dawn re-entry survey or infra-red cameras should be used as an aid. Surveys should be a minimum of two weeks apart.</p> <p>Three surveyors are required to provide full coverage of the building. If bat roosts are confirmed in the building one additional survey will be required to inform an EPSL application to Natural England</p>
Foraging and commuting bats	<p>The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats.</p> <p>The proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.</p>	A low impact lighting strategy will be adopted for the site during and post-development, details are shown in Table 8.



Hedgehogs	<p>The proposed development will result in the loss of 3.375ha of low value grassland and various ornamental trees, hedgerows and shrubs. Site clearance will also result in the loss of sheds and stored items that could be used for shelter and hibernacula.</p> <p>Construction activities could result in the death or injury of hedgehogs, if present.</p>	<p>A precautionary working method will be implemented during construction, details are shown in Table 8.</p>
Birds	<p>The proposed development will result in the loss of 3.375ha of low value grassland and various ornamental trees, hedgerows and shrubs and areas of dense ivy. Site clearance will result in the removal of bird houses and feeding stations.</p> <p>As birds become accustomed to areas where food and shelter is available, the removal of these food resources and habitats will have a small impact on local bird populations.</p> <p>The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.</p>	<p>Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation 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.</p>

## Contents

1.0 Introduction and Context.....	11
1.1 Background.....	11
1.2 Site Context.....	11
1.3 Scope of the Report.....	11
2.0 Methodology.....	13
2.1 Desk Study.....	13
2.2 Field Survey.....	13
2.3 Limitations.....	14
3.0 Results and Evaluation.....	15
3.1 Designated Sites.....	15
3.2 Field Survey Results.....	15
4.0 Conclusions, Impacts and Recommendations.....	43
4.1 Informative Guidelines.....	43
4.2 Evaluation.....	43
5.0 Bibliography.....	53
Appendix 1: Proposed Development Plan.....	55
Appendix 2: Site Location Plan.....	56
Appendix 3a: Habitat Survey Plan.....	57
Appendix 3b: PRA Survey Plan.....	58
Appendix 4: Legislation and Planning Policy.....	59

## 1.0 Introduction and Context

### 1.1 Background

Arbtech Consulting Limited was instructed by Zed Pods Ltd to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at School Close, Bampton, Mid Devon, EX16 9NN (hereafter referred to as “the site”). The survey was required to inform a planning application for the demolition of existing houses and the construction of two and three-storey houses (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 SS95452216 (centre point of site) and has an area of approximately 4,458<sup>m</sup><sup>2</sup> comprising 10 existing dwellings with garden space and is within the defined settlement limit of Bampton. The site itself does not contain any heritage assets but adjoins the Bampton Conservation area along its south-eastern boundary. Several Listed Buildings and a Schedule monument are within the sites vicinity which may require further consideration. A number of trees and hedgerows are located on the site. The river Bathern flows 308m southeast of the site at its nearest point with a Devon Wildlife Trust Reserve along the land adjacent to the river.

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 Merry Anderson (Natural England Bat Licence Number: 2022-10316-CL18-BAT, GCN license number: 2022-10738-CL08-GCN) on 06/12/2022.

#### 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 10 built structures and any mature trees within the development boundary 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.

The survey was completed outside of the optimal survey period (April to October) limiting the identification of ground flora species.

Specific limitations to the PRA were a lack of access into all but one of the dwellings.

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

A review of the Defra Magic database did not return any statutory designated site with relevance to ecology, given they are geological designations. The site is not within an AONB. Information on non-statutory sites cannot be obtained without datasets from the local environmental records centre.

The site does not lie within the impact risk Zone for any statutory designations outside of the 2km radius.

#### 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 4.

Table 4: Weather conditions during the survey

Date: 06/12/2022	
Temperature	6°C
Humidity	78%
Cloud Cover	76%
Wind	4mph
Rain	None

#### Habitats and Flora



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

- u1b developed land, sealed surface
- u1c artificial, unvegetated, unsealed surface
- u1 310 64 urban garden, grassland, mown
- u1 230 urban garden, vegetated garden
- u1 310 72 urban garden, grassland, stone faced bank
- u1 310 71 urban garden, grassland, earth bank
- u1e 68 built linear feature, mortared wall
- u1 1180 48 urban garden, hedgerow, non-native
- u1e 67 built linear feature, drystone wall
- u1 11 urban garden, scattered trees
- h3d bramble scrub
- u1 350 urban garden, abandoned ruderal and derelict area
- Target note 1 pond
- Target note 2 invasive species


A description and photographs of each habitat are provided in Table 5. For ease of interpretation, the site has been divided into 3 separate plots as shown in the habitats map in Appendix 3.

Cotoneaster horizontalis, a non-native invasive plant species (as listed under Schedules 9 of the Wildlife and Countryside Act 1981) was identified on the site.

Table 5: Description and photographs of habitats within and adjacent to the site

Habitat Type	Habitat description	Photograph
<p>u1e 68 built linear feature, mortared wall u1 1180 48 urban garden, hedgerow, non-native Target note 2 invasive species</p>	<p>Plot 1: Southeast of the site looking northwest Extending the southeast of plot 1 is a length of mortared wall constructed from traditional stone. A hedgerow comprising cherry laurel is planted along the wall top. The site is built into an embankment and is raised inline with the height of the wall. Extending on from the laurel hedgerow is cotoneaster horizontalis, which spreads over the wall top. This is a common ornamental garden plant however is listed as a non-native invasive species.</p>	 <p>Bampton Dec 06,2022 10:48:30 am</p>
<p>u1 310 72 urban garden, grassland, stone faced bank u1 1180 48 urban garden, hedgerow, non-native</p>	<p>Plot 1: Site looking east This photograph shows the tiered landscaping with drystone wall embankments covered in grass. A hedgerow of photinia red robin has been planted along the fence line. The grassland is species rich with a diversity of herbs present including an abundance of wild strawberry, cranesbill geranium, white clover and other common and widespread perennial species. The grass on top of the stone-faced embankment is left unmanaged and infrequently cut. The stone wall has gaps and crevices between the stones.</p>	 <p>Bampton Dec 06,2022 10:03:29 am</p>





<p>Target note 1 pond</p>	<p>Plot 1: Rear garden                  Located in the rear garden is a set of small ponds. Despite their small size, they are known to have common amphibians present in spring.</p>	
<p>u1 310 64 urban garden, grassland, mown                  u1 310 72 urban garden, grassland, stone faced bank</p>	<p>Plot 1: Site looking northeast                  The stone-faced embankment extends the eastern boundary of the garden and comprises unmanaged grass with common nettle and ivy. The remaining garden is amenity lawn with a small area of paving under the pergola. A set of steps lead down from the garden into an area of hardstanding which is used for storage.</p>	

<p>u1 230 urban garden, vegetated garden                  u1 310 64 urban garden, grassland, mown                  u1b developed land, sealed surface</p>	<p>Plot 1: Site looking west                  The footpath extends the length of the front garden between a small area of grassland and vegetated garden beds. These comprise a dominance of non-native ornamental shrubs. Wisteria is present climbing on trellis across the front of the building.</p>	 <p>Bampton                  Dec 06, 2022 10:08:47 am</p>
<p>Target note 2                  invasive species</p>	<p>Plot 1: Site looking south                  This photograph shows the cotoneaster growing along the wall top.</p>	 <p>Bampton                  Dec 06, 2022 10:41:18 am</p>



<p>u1 310 64 urban garden, grassland, mown u1 11 urban garden, scattered trees</p>	<p>Plot 1: Site looking west At the end of the footpath is a small area of lawn with a collection of conifer trees and shrubs. An apple tree is present in the corner of the site. This area is used for composting and has piles of garden brash and leaves. A closeboard fence extends along the boundary which is covered in thick ivy. This area of garden extends to the rear of the building.</p>	 <p>Bampton Dec 06, 2022 10:33:20 am</p>
<p>u1b developed land, sealed surface u1c artificial, unvegetated, unsealed surface</p>	<p>Plot 1: site looking northeast The rear garden comprises hardstanding, used for storage, and a small area of paving and gravel used as a patio. The dividing hedgerow is dominated with cotoneaster. A small greenhouse is present and garden bed containing clematis, buddleia and small rosette weed species.</p>	 <p>Bampton Dec 06, 2022 10:36:03 am</p>

<p>u1b developed land, sealed surface u1 310 71 urban garden, grassland, earth bank</p>	<p>Plot 2: site looking north Plot 2 is a block of 4 dwellings surrounded by a road and footpath and small area of hardstanding for parking. A small patch of amenity grassland leads up an embankment to the dwellings. This is of low ecological value and comprises predominantly perennial rye grass with common herb species. Two mature silver birch trees are located within this area of grassland.</p>	<p>Bampton Dec 06, 2022 11:22:37 am</p> <p>Bampton Dec 06, 2022 10:49:38 am</p>
---	---	---



<p>u1 310 64 urban garden, grassland, mown</p>	<p>Plot 2: Front gardens, site looking west Extending the front of the dwellings are small areas of lawn bisected with footpaths and boundary fences. The grass is cut to a short sward and includes a dominance of perennial rye grass and common and widespread herb species. Some ornamental shrubs are present however, these gardens are considered to be of low ecological value.</p>	 <p>Bampton Dec 06, 2022 10:53:46 am</p>
<p>u1 310 64 urban garden, grassland, mown</p>	<p>Plot 2: rear gardens, site looking south The rear gardens are on a south-facing sloping embankment. Pictured opposite is the garden connected to plot 1. The site had been recently cleared when the survey was conducted. The grass is homogenous in composition and structure and has herb species including ribwort plantain, creeping buttercup, dandelion, common daisy within the sward.</p>	 <p>Bampton Dec 06, 2022 10:55:31 am</p>


<p>u1 310 71 urban garden, grassland, earth bank u1e 67 built linear feature, drystone wall h3d bramble scrub</p>	<p>Plot 2: site looking northwest These photographs show the steep south-facing embankment at the top of the site. Recent clearance has removed a large area of bramble scrub from the northeast corner which has revealed a stone wall that extends inside the embankment which is now covered in soil and grass. Some stones are visible under the subsoil. Within the area of bramble brash is composted garden material, tyres, and other items of household waste. The closeboard fence is in a dilapidated condition and covered in ivy. At the top of the embankment an area of bamboo has been cut down that has encroached from the adjacent garden.</p>	 <p>The top photograph shows a steep, south-facing embankment covered in dense bramble scrub. A stone wall is visible, partially obscured by soil and grass. Household waste, including a tyre, is scattered among the brambles. The bottom photograph shows a wider view of the site, featuring a grassy area in the foreground, a dilapidated closeboard fence, and a residential house in the background. A bamboo area has been cut down at the top of the embankment.</p>
---	---	--

<p>u1b developed land, sealed surface</p> <p>u1c artificial, unvegetated, unsealed surface</p> <p>u1 310 64 urban garden, grassland, mown</p> <p>u1 11 urban garden, scattered trees</p>	<p>Plot 2: rear gardens</p> <p>Access into two of the rear gardens was achieved during the survey. These comprise amenity lawns with various ornamental shrubs and trees, predominantly conifer and non-native species. The areas of hardstanding contain sheds and outbuildings. The lawns are cut to a short sward and are of low ecological value. Closeboard fencing and hedgerows divide the garden areas.</p>	<p>The top photograph shows a paved path leading through a lawn with a red shed and a tree. The bottom photograph shows a garden with a wooden fence, a shed, and steps leading to a lawn.</p>
--	---	--

<p>u1 310 64 urban garden, grassland, mown u1 11 urban garden, scattered trees</p>	<p>Plot 2: Site looking west Extending along to back of the gardens is a stretch of amenity grassland. One mature stand of Norway maple is present. The grassland is dominated with perennial rye with a low diversity of herb species and is considered to be of low ecological value.</p>	 <p>Bampton Dec 06, 2022 11:36:11 am</p>
<p>u1 310 64 urban garden, grassland, mown u1 230 urban garden, vegetated garden</p>	<p>Plot 3: site looking west Plot 3 comprises two detached dwellings. The area of garden at the front of the dwellings comprises grass lawn and garden beds with ornamental shrub planting. The grass is maintained at a short sward and has common and widespread herb composition and is therefore considered of low ecological value.</p>	 <p>Bampton Dec 06, 2022 12:14:51 pm</p>



<p>u1 310 64 urban garden, grassland, mown</p> <p>u1 230 urban garden, vegetated garden</p> <p>u1b developed land, sealed surface</p> <p>u1 1180 urban garden, hedgerow,</p>	<p>Plot 3: rear gardens, site looking southeast</p> <p>The rear gardens of the first detached dwelling comprise a large area of grassland which had been recently cut at the time of the survey. Adjacent is an extensive vegetable plot. A footpath extends between the two garden areas. A green house and shed with collection of composting bins and water butts are present. Extending the western boundary is a garden bed containing non-native shrub species and a clipped hedgerow.</p>	 <p>Bampton Dec 06, 2022 12:18:54 pm</p>
<p>u1 310 71 urban garden, grassland, earth bank</p> <p>u1b developed land, sealed surface</p>	<p>Plot 3: site looking east</p> <p>This photograph shows the steep earthbank at the end of the rear gardens leading to an area of hardstanding used for carparking. The grass on the embankment is of a longer tussocky sward. Steps leading from the gardens are installed within the embankment.</p>	 <p>Bampton Dec 06, 2022 12:22:31 pm</p>

<p>u1 310 64 urban garden, grassland, mown</p> <p>u1 1180 48 urban garden, hedgerow, non-native</p> <p>u1b developed land, sealed surface</p>	<p>Plot 3: Site looking south</p> <p>This photograph shows the garden area of the second dwelling within plot 3. It comprises an area of lawn bisected with a footpath. The hedgerow at the top of the garden is Leyland cypress. A similar Leyland hedgerow is present on the boundary to the adjoining garden.</p>	
<p>u1 310 64 urban garden, grassland, mown</p> <p>u1 1180 urban garden, hedgerow, h3d bramble scrub</p>	<p>Plot 3: End garden, site looking northwest</p> <p>The garden area to the west of the plot comprises an area of hardstanding with various sheds and dog pens, two areas of grass lawn and a hedgerow comprising hazel and hawthorn with common nettle and bramble. The lawn is cut to a short sward and is of low ecological value however is functionally linked area of unmanaged land.</p>	

<p>h3d bramble scrub u1 350 urban garden, abandoned ruderal and derelict area</p>	<p>Plot 3: area adjacent to garden These photographs show the bramble scrub and all ruderal grassland. Despite being outside of the development boundary, this area is of high ecological value for wildlife. Extending beyond this wild area is a pocket of trees and allotments.</p>	
---	--	--

## Fauna

### Bats

Two European Protected Species Licences (EPSLs) have been returned from a review of the Defra Magic database for the following bat species:



Common pipistrelle, whiskered, brants, brown long-eared, soprano pipistrelle and serotine. The closed record is for the destruction of a resting place for common pipistrelle, whiskered and brants bats and is located 280m southwest of the site.

The site is located within the rural village of Bampton within a small residential housing estate. The immediate surroundings comprise houses with gardens and scattered trees. To the east is a small woodland copse extending to arable and pastoral farmland. To the west is a large expanse of open green space with extensive broadleaf woodland and the river Bathern. The wider



landscape contains fields with a network of hedgerow linking small areas of woodland. Foraging and commuting bats will use the dark corridor of the river and the tree lines and hedgerows to navigate between feeding and roosting sites and will make use of gardens and scattered trees to forage as they pass over the site. The surrounding farmland will provide a rich foraging resource of insect and invertebrate prey.



The results of the PRA are provided in Table 6. A bat roost was recovered from the loft of no.1 School Close. For ease of interpretation the blocks of housing have been numbered, as shown in the bat survey plan in Appendix 3. Due to access restrictions, outbuildings and sheds have not been inspected.



Table 6: Assessment of the suitability of the site for bats

Feature Ref	Description	Photographs
B1 – southeast elevation	<p>B1 (external assessment)</p> <p>B1 is a bungalow serving to residences. The gable pitched roof is clad in concrete interlocking tiles with a dry ridge. Two chimneys are present. There is an attached flat roof extension on each gable end. The south elevation of the roof has solar panels. The gable ends have a moulded plastic endcap covering the end roof tiles. The windows are uPVC and the walls are rendered. No access was available to inspect the loft space, so an external assessment was conducted. The roof tiles are in good condition and appear to be recently installed.</p> <p>The presence of the solar panels has obscured a line of sight on the majority of the south elevation, however, given the condition of the surrounding tiles, it is not anticipated there is any roost habitat present under the solar panels.</p>	 <p>Bampton Dec 06, 2022 10:07:24 am</p>
B1 – south elevation	<p>This photograph details the dry ridge system. The ridge tiles are concrete and are not mortared into place but appear to be laid on top of a membrane as a dry ridge. This has created a series of gaps, present under each ridge tile, across the extent of the roof. As ridge tiles vary in design it is not possible to assess how much space is accessible under the ridge tile. However, ridges are often exploited by bats and offer roost habitat for small crevice dwelling species such as pipistrelles. Unlike void dwelling species, pipistrelles are commonly found to be roosting on the outside of buildings, exploiting spaces of 8mm or more. Given the presence of the membrane it is unlikely these gaps lead directly into the loft spaces however, without internal inspection of the roof cavity, this cannot be fully discounted.</p> <p>The chimney is constructed from rendered brick with a lead flashing surround. This appears in good condition on this elevation.</p>	 <p>Bampton Dec 06, 2022 10:08:06 am</p>



<p>B1 – east elevation</p>	<p>This photograph shows the top of the flat roof extension which is covered in bitumen felt and is intact with no obvious signs of damage or tears which could be used by bats for roosting.</p>	
<p>B1 – north elevation</p>	<p>This photograph shows the rear of the building. The roof tiles on this elevation appear in good condition with no slipped, missing or damaged tiles. A uPVC soffit box extends the roof line which is intact on this elevation.</p>	



<p>B1-north elevation</p>	<p>This photograph details an area of damage to the chimney on the northwest side of the roof and slightly lifted lead flashing. This may be exploited by a crevice dwelling bats such as pipistrelles for roosting.</p>	 <p>Bampton Dec 06, 2022 10:37:07 am</p>
<p>B1-south elevation</p>	<p>This photograph details a hole leading into a uPVC box soffit that extend the front of the building. Soffit boxes provide habitat for void dwelling species of bats.</p> <p>A line of sight onto the extension roof could not be established in this end of the building however from ground level the felt lining appears to be in good condition with no folds or tears around the edges of the extension roof.</p>	 <p>Bampton Dec 06, 2022 10:44:20 am</p>

<p>B1-south elevation</p>	<p>This photograph details the plastic endcap that is present on the gable ends of the building. This is open at the ends allowing access for bats into the void between the roof tiles and endcap. These gaps are present on each gable end.</p>	 <p>Bampton Dec 06, 2022 10:44:38 am</p> <p>arbtech</p>
<p>B2 elevation -south</p>	<p>B2 (external assessment and partial internal inspection) B2 is a block of housing serving 4 residences. Access into no. 1 School Close was available at the time of the survey. This was found to contain a bat roost.</p> <p>An external assessment of the building found the roof tiles to be in good condition and recently installed. The presence of a dry ridge, however, does provide roost habitat as mentioned earlier in this report. The gable ends of the building have moulded plastic endcaps which have gaps at either end which may be used by bats for roosting.</p>	 <p>Bampton Dec 06, 2022 11:22:37 am</p> <p>arbtech</p>

<p>B2 -southeast elevation</p>	<p>This photograph shows the southeast elevation of the building where the roost is located. As the internal survey found bat droppings and urine staining in the internal gable wall, points of possible access have been identified on this gable end as indicated by the red arrows. Bats may be able to access the roof through the end cap or may be entering into an internal wall cavity via the ventilation grills.</p>	 <p>Bampton Dec 06, 2022 10:53:35 am</p>
<p>B2 south elevation</p>	<p>This photograph shows more ventilation grills on the front of the building. If a cavity wall is present, bats will exploit this for roosting and gaining access to other areas of the building.</p>	 <p>Bampton Dec 06, 2022 11:23:54 am</p>

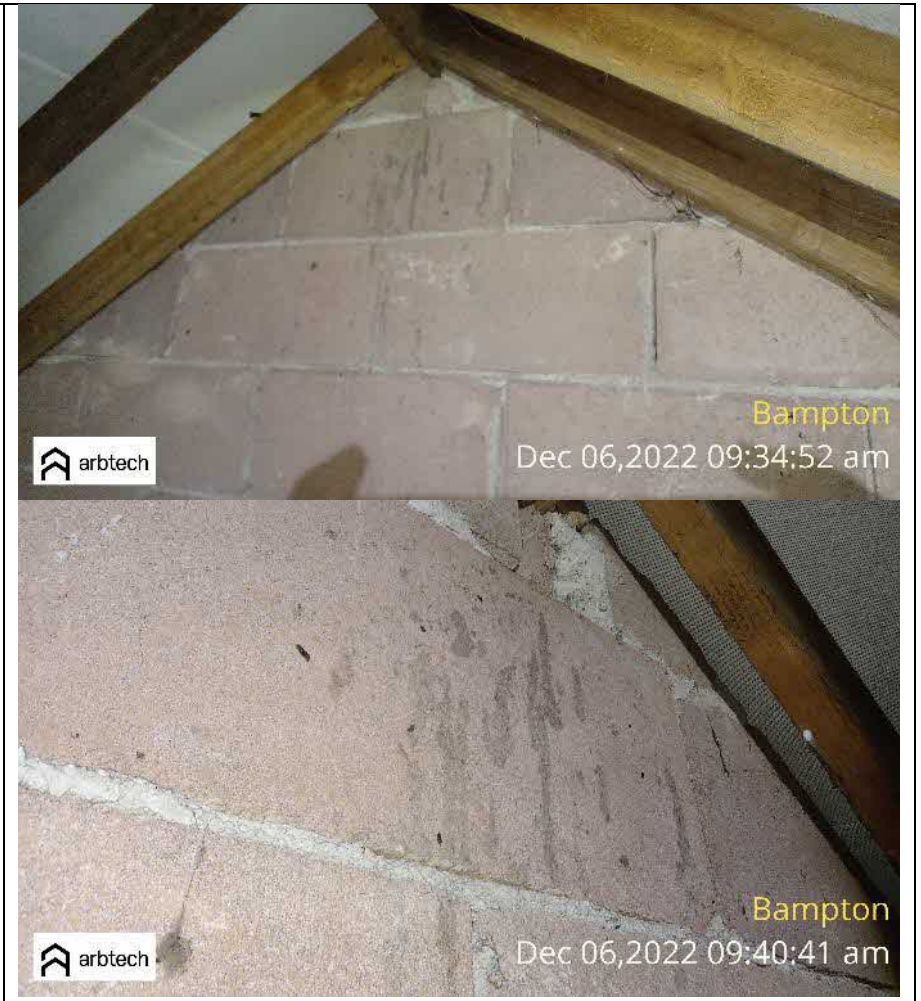




<p>B2 north elevation</p>	<p>This photograph shows another possible access point for bats entering the roof as witnessed by the neighbour, however an inspection from below the roof line did not locate any damage to access points. Ivy is growing up the wall which may be concealing a hole or gap which bats may be using to enter the roof cavity.</p> <p>The remaining roof on the north elevation appear in good condition. The brick chimney and lead flashing are intact.</p>	
<p>B2 internal loft</p>	<p>This photograph shows the inside of the loft space of no1. The remnants of the chimney are still present. The loft is constructed from modern timbers and is lined with new breathable roof membrane. This was in good condition with no rips or tears. The loft floor is covered in two layers of mineral wool insulation.</p>	



<p>B2 -loft</p>	<p>This photograph shows bat dropping located next to the loft hatch. Approximately 50 droppings were present in this area. The size and texture of the droppings is consistent with a long-eared or myotis species. A sample of droppings has been retained for DNA analysis.</p>	
<p>B2 -loft</p>	<p>This photograph shows an area of lightspill into the loft. This is likely from the vented box soffit that extends the roof line.</p>	



B2 loft gable wall

These photographs detail a roost area for bats at the east gable wall. Clearly visible are urine stains and droppings. A gap in the block work is present at the apex of roof around the ridge beam.

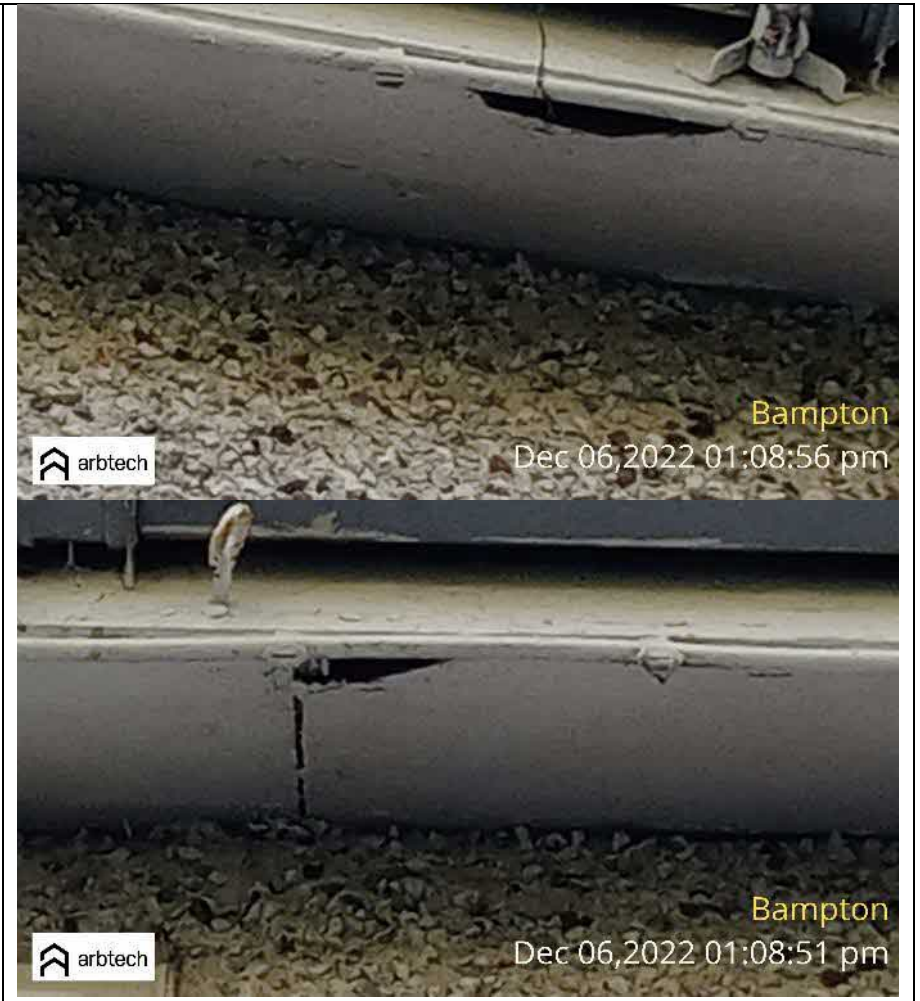


<p>B2 loft</p>	<p>This photograph details the bat droppings located at the gable wall. Also present are small tortoiseshell wings which are typically associated with long-eared bat feeding sign. Approximately 100 droppings were present. A sample of droppings has been retained for DNA analysis.</p>	 <p>Bampton Dec 06, 2022, 09:35:53 am arbttech</p>
<p>B2 extension (east)</p>	<p>These photographs show the extension from the main building. The roof is covered in bitumen felt which is intact and in good condition with no areas identified for bats to roost. An internal inspection of the extension of no. 1 found no evidence of roosting bats. The inside of the property has been cleared and stripped.</p>	 <p>Bampton Dec 06, 2022 11:04:48 am arbttech</p>

		
<p>B2 extension (west)</p>	<p>This photograph shows the flat roof extension to the west of the housing block. Access was no permitted inside. The roof is clad in bitumen felt which appears in good condition with no roost features identified.</p>	


<p>B3 -southeast elevation</p>	<p>B3 (external assessment)                  B3 is a detached building serving two residences. The roof is clad in concrete tiles and a concrete ridge that is mortared. This roof appears older and is likely the original roof installed when the building was constructed. No access was possible, so an external assessment of the building has been made.                  The roof ties are in moderate condition however, an inspection with binoculars found damage to the ridge and areas of access on the end tiles.                  There are two ventilation units installed on this elevation and two flue pipes. A uPVC box soffit extends the roof line which appears intact.</p>	
<p>B3 -south elevation</p>	<p>Three areas of damage have been identified on this elevation as indicated by the red arrows. Areas of missing mortar around the ridge and a gap under the tiles on the gable end may provide roost habitat for crevice dwelling species. The gap under the ridge may allow access for bat to enter the roof cavity.</p>	

<p>B3 north elevation</p>	<p>This photograph shows the rear of B3. The roof tiles appear intact however it was noted two tiles has been replace on the western end of the roof. These appear light in colour. The chimney and lead flashing surround on this elevation are in good condition. An inspection using binoculars did not find any roost features on this elevation however, without an internal inspection, it cannot be discounted that bats may have accessed the loft through the area where tiles have been replaced. The extensions on side of the building have roofs covered in bitumen felt. These appear in good condition with no obvious damage or roost features identified.</p>	
<p>B4 -south elevation</p>	<p>B4 (external assessment) B4 is a detached dwelling serving two residences. The roof is clad in concrete tiles and ridge that is mortared. There are solar panels installed on this elevation and two flue pipes present. A wooden box soffit extends the roof line which has damage in two areas as indicated by the red arrows. Void dwelling bats will exploit box soffits, particularly south-facing, for roosting. Wood is also a good thermal insulator.</p>	

<p>B4 elevation</p> <p>-south</p>	<p>These photographs detail the two areas of damage to the box soffit.</p>	
---------------------------------------	--	--



<p>B4 -northeast elevation</p>	<p>This photograph shows the northeast elevation at the rear of the property. The roof tiles are in moderate condition however a gap under the ridge was identified on this elevation as indicated by the red arrow. This could be used by crevice dwelling bats for roosting and could allow access into the internal roof cavity for void dwelling bats.</p> <p>The roof tiles on the gable end are in good condition and will mortared. Due to excessive clutter, it was not possible to inspect the box soffit under the roof line.</p>	
<p>B4 -extension (east) and outbuildings</p>	<p>There is an extension connecting the two buildings B3 and B4. This has a flat roof covered in bitumen felt that appears in good condition. Additional sheds have been built off the extension. These structures have bitumen felt and plastic sheet roofing that appears damaged and in poor condition and may provide roost habitat for bats.</p>	

<p>B4 -northwest elevation</p>	<p>This photograph shows the northwest elevation. The roof tiles are in good condition and well mortared at the gable end. The roof is in good condition on this elevation and appears to have been renewed in places. No other roost features were identified on this elevation.</p>	 <p>Bampton Dec 06,2022 12:48:14 pm</p>
<p>B4 extension (west)</p>	<p>The extension has been made into a dog pen with a corrugated metal roof. This appears in good condition. Although gaps are present under the roof sheet, bats typically do not roost under metal roofing due to high fluctuations on temperature and humidity. The collection of sheds adjacent to the building were not able to be internally inspected.</p>	 <p>Bampton Dec 06,2022 12:52:23 pm</p>
<p>Trees</p>	<p>An assessment of the mature trees within and adjacent to the site did not identify any features that could be used by roosting 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 which will comprise the demolition of existing houses and the construction of two and three-storey houses (hereafter referred to as “the proposed development”).

Table 8: Evaluation of the site and any ecological constraints

Ref	Summary of Survey Findings	Foreseen Impacts	Recommendations Measures required to adhere to guidance, legislation and planning policies.	Biodiversity Enhancements The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021) and the Mid Devon Local Plan 2013-2033
Designated sites	The site is not subject to relevant any statutory designation and is not within the impact risk zone for any statutory designations outside of the 2km radius. The presence of non-statutory designated sites within 2km of the site cannot be established without data from Devon Biodiversity Records Centre.	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	<p>There are no notable habitats within the site however, deciduous broadleaf woodland and ancient woodland are present within 1km of the site with the nearest being 200m southeast of the site. Floodplain grazing marsh is present to the south and purple moor grass and rush pasture are present to the west within 2km of the</p> <p>Other habitats within the site are common and widespread and have low botanical value. The two silver birch trees present to the southeast of the site and the Norway maple to the north will to be retained in the proposed landscaping plan along with the small area of woodland to the west and three trees along the easter boundary.</p> <p>No protected or notable plant species were recorded during the survey, however cotoneaster horizontalis was identified on the site, which is listed as an invasive, non-native species under Schedule 9 of the Wildlife and Countryside Act 1981.</p>	<p>No impacts to any notable habitats are anticipated due to the distance of the proposed development from such habitats as well as the urban location of the site with surrounding physical barriers.</p> <p>The proposed development will result in the loss of 3.375ha of low value grassland and various ornamental trees, hedgerows and shrubs within the existing gardens, many of which are non-native. However, this will be compensated by the enhancement of the site to include good quality amenity grassland and flower rich perennial planting totally 2.18ha, 12 native trees planted as standards and 170m<sup>2</sup> of species rich hedgerow. This is likely to result in a net gain in biodiversity.</p> <p>Construction could result in the spread of cotoneaster horizontalis.</p>	<p>Best practice measures to minimise the possibility of pollution and tree damage must be implemented during construction.</p> <p>A Biodiversity Net Gain (BNG) Assessment will be conducted to ensure that the proposed development achieves BNG.</p> <p>An Arboricultural Assessment to determine impacts on trees will be conducted to ensure root protection zones on retained trees and surrounding trees are not impacted.</p> <p>Cotoneaster should be dug up, including roots, and disposed of in line with appropriate controlled waste measures.</p>	<p>Habitat creation and enhancement opportunities will be detailed within the landscape strategy/BNG assessment.</p> <p>Species-specific enhancement opportunities are detailed later in this table.</p>
Amphibians	<p>The site is not within a GCN consultation zone or identified as within a red risk area for this species. (<a href="https://naturalengland-defra.opendata.arcgis.com/">https://naturalengland-defra.opendata.arcgis.com/</a>)</p> <p>A review of the Defra Magic database has not returned any records for positive pond test results or licence returns for GCN within 2km. It is therefore considered this species is not within the locality and requires no further consideration in this report.</p> <p>Two very small ponds are located within the garden of plot 1. These are ornamental ponds which are too small to support</p>	<p>The proposed development will result in the loss of the small ornamental ponds and the surrounding stone-faced grass embankment, shrubs and hedgerows that will be used as terrestrial habitat.</p> <p>The loss of such habitats is likely to be inconsequential to local amphibian populations owing to their low value and the presence of more extensive habitat locally. However, site clearance could result in the death or injury of amphibians, if present.</p>	<p>A precautionary working method will be implemented for common amphibians during construction, including the following measures:</p> <p>Site clearance will be undertaken outside of the amphibian hibernation season (November to February) insofar as is possible.</p> <p>A staged approach will be adopted for vegetation clearance, whereby the long grass and vegetation along the eastern boundary will be cut back to 15cm and left overnight to allow any amphibians to disperse. The vegetation can then be cleared to a short sward and must be</p>	<p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for amphibians:</p> <p>Creation of amphibian refugia and hibernacula using debris and</p>

	<p>significant numbers of amphibians, however small numbers or individuals may be present. The stone-faced grass embankment will provide habitat for amphibians dispersing the pond and provide forage and shelter.</p> <p>A review of the OS map shows one pond located 120m south of the site. This may be used by common species of amphibians for breeding after which individuals will leave the water and find suitable terrestrial habitat.</p>		<p>maintained at this level for the duration of construction to deter amphibians from the working area.</p> <p>Stone-faced embankments will be carefully dismantled by hand to check for sheltering amphibians between the stones. Debris and brash will be stored on pallets or removed from the site to prevent amphibians from utilising these areas.</p> <p>Best practice pollution prevention measures will be implemented to minimise impacts to retained habitats that amphibians could use.</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>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.</p>	<p>brash from site clearance.</p> <p>Planting of native scrub and grassland to increase foraging opportunities.</p>
Reptiles	<p>A review of the Magic database has not returned any records for fully protected reptiles within 2km of the site. The site is built into a south-facing embankment and provides favourable basking habitat for reptiles. Two area of the site have high value for slow worms, being the gardens to the east of the site and to the far west of the site, adjacent to the area of derelict land. The stone-faced embankment within plot 1 provides optimal habitat for basking and sheltering reptiles and the rough grassland will be used for foraging and dispersal. The gaps and crevices within the stone walls and embankment will be used as winter hibernacula. To the west, the short lawn adjacent to thick bramble scrub</p>	<p>3.375ha of low value grassland, including the stone-faced grass embankments, shrubs and hedgerows will be removed during construction. This will result in the loss of habitat for basking, foraging and sheltering reptiles. Site clearance could result in the death or injury of reptiles, if present.</p>	<p>Reptile surveys will be required to determine presence or likely absence of reptiles on the site. Survey effort will be concentrated on the gardens with high value habitat, being the garden of plot 1 to the east and plot 4 to the west of the site. Surveys will comprise the deployment and monitoring of artificial refugia over seven visits and such surveys must be undertaken between April, May and September, in accordance with current survey guidelines (Gent &amp; Gibson, 2003). The surveys are likely to be required before planning permission can be granted.</p>	<p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for reptiles:</p> <p>Creation of reptile refugia and hibernacula using debris and brash from site clearance.</p> <p>Planting of native scrub and grassland to</p>

	provides an ecotone habitat that is typically exploited by reptiles for basking opportunity. The presence of slow worms within the gardens has been confirmed by residents, particularly around areas of compost and garden waste.			increase foraging opportunities. The creation of basking areas such as rock piles or areas of cleared ground with shelter nearby.
Roosting bats B1	<p>B1 has moderate value for roosting bats. Roost features have been identified within the dry ridge, plastic end cap and box soffit. An internal survey has not been conducted to rule out previous bat occupation, however the building is adjacent to a confirmed bat roost.</p> <p>Two EPSLs have been returned within 2km for multiple species of bats. The surrounding landscape is high value for bats comprising mature trees, woodland and watercourses.</p>	The proposed development will result in the demolition of this building. This could result in the destruction of any bat roosts present and could cause disturbance, death or injury to bats.	<p>Two bat emergence and re-entry surveys are 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. Both of the surveys should be completed during the optimal survey period mid-May to August inclusive.</p> <p>One of these surveys should be a dawn re-entry survey or infra-red cameras should be used as an aid. Surveys should be a minimum of two weeks apart.</p> <p>Three 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 one additional survey will be required to inform an EPSL application to Natural England. 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.</p>	To be confirmed upon completion of the surveys.
Roosting bats B2	Building B2 has a confirmed roost, as identified by bat droppings and feeding signs recovered from the loft of no.1 School close. This is likely to be a day roost for long-eared bats. Other areas of the building may	The proposed development will result in the demolition of this building. This could result in the 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 (optimal May to August, suboptimal September) to characterise the roosts present. At least two of the surveys	To be confirmed upon completion of the surveys.

	<p>be functionally linked to this roost. Roost features identified within the dry ridge may provide roost habitat for crevice dwelling species. An internal inspection was not able to be conducted within the remaining loft voids.</p>		<p>should be completed during the optimal survey period mid-May to August inclusive. One of these surveys should be a dawn re-entry survey or infra-red cameras should be used as an aid. Surveys should be a minimum of two weeks apart. Four surveyors are required to provide full coverage of the building. Surveys are likely to be required before planning permission can be granted.</p> <p>An EPSL application to Natural England will be required. 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.</p> <p>A Material Changes Check will be required within three months of the EPSL submission, if no survey work has been undertaken within that period. If bat droppings were found during the PRA, a sample will need to be sent off for DNA analysis to confirm the bat species present, to inform the EPSL application.</p>	
Roosting bats B3	<p>B3 has moderate value for roosting bats. Roost features have been identified on the south elevation which could be used by crevice dwelling bats. An internal survey has not been conducted to rule out previous bat occupation, however the building is in close proximity to a confirmed bat roost.</p>	<p>The proposed development will result in the demolition of this building. This could result in the destruction of any bat roosts present and could cause disturbance, death or injury to bats.</p>	<p>Two bat emergence and re-entry surveys are 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. Both of the surveys should be completed during the optimal survey period mid-May to August inclusive. One of these surveys should be a dawn re-entry survey or infra-red cameras should be used as an aid. Surveys should be a minimum of two weeks apart. Three surveyors are required to provide full coverage of the building.</p>	<p>To be confirmed upon completion of the surveys.</p>

			If bat roosts are confirmed in the building one additional survey will be required to inform an EPSL application to Natural England	
Roosting bats B4	B4 has moderate value for roosting bats. Roost features have been identified on the north elevation with a gap identified leading under the ridge. Cracks on the box soffit on the south elevation could be used by bats for roosting. An internal survey has not been conducted to rule out previous bat occupation, however the building is in close proximity to a confirmed bat roost.	The proposed development will result in the demolition of this building. This could result in the destruction of any bat roosts present and could cause disturbance, death or injury to bats.	Two bat emergence and re-entry surveys are 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. Both of the surveys should be completed during the optimal survey period mid-May to August inclusive. One of these surveys should be a dawn re-entry survey or infra-red cameras should be used as an aid. Surveys should be a minimum of two weeks apart. Three surveyors are required to provide full coverage of the building. If bat roosts are confirmed in the building one additional survey will be required to inform an EPSL application to Natural England	To be confirmed upon completion of the surveys.
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.  The proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.	A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures: Use narrow spectrum light sources to lower the range of species affected by lighting. Use light sources that emit minimal ultra-violet light. Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin. Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights	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.



			<p>will also be directional to ensure that light is directed to the intended areas only.</p> <p>External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on.</p> <p>Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.</p>	
Badger	The site has negligible habitat for badger setts and is located within urban development making it less likely badgers will commute onto the site from the surrounding area where there is optimal habitat. The grassland within the site is sub-optimal as a food resource for badgers due to the low quality grassland and small area. The site survey did not identify any field sign for badgers.	No impacts are anticipated on badgers as a result of the proposed development.	None.	None.
Hazel dormouse	The site has negligible value for hazel dormouse due to a lack of habitat and severed connectivity to the surrounding landscape where dormice may be present.	No impacts are anticipated on hazel dormice as a result of the proposed development.	None.	None.
Hedgehog	Hedgehogs are adaptable, highly mobile and have become accustomed to negotiating physical obstacles such as roads. As such, they are commonly found in urbanised environments such as gardens and will exploit short grass to forage for earthworms, slugs and snails. As such they	The proposed development will result in the loss of 3.375ha of low value grassland and various ornamental trees, hedgerows and shrubs. Site clearance will also result in the loss of sheds and stored items that could be used for shelter and hibernacula.	<p>A precautionary working method will be implemented during construction, including the following measures:</p> <p>Site clearance will be undertaken outside of the hedgehog hibernation season (November to March) insofar as is possible.</p>	The following habitat creation and enhancement opportunities could be incorporated into the proposed development

	<p>can be found sheltering in a variety of places such as sheds, garages, outbuildings, under stored items, in leaf litter, log piles and rubble. Hedgehogs are likely to be onsite and maybe present taking refuge in the numerous sheds and storage containers present in the rear gardens of the site. The vegetable plot will provide abundant forage for hedgehogs. The allotments adjacent to the west will attract commuting hedgehogs who will pass through gardens on their way to feeding grounds.</p>	<p>Construction activities could result in the death or injury of hedgehogs, if present.</p>	<p>Heras fencing will be erected around the working area to prevent encroachment into retained habitats where hedgehogs could be present. 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 or created by the development should be stored and disposed of correctly according to COSHH regulations. If a hedgehog is found then this should be moved by gloved hand to an undisturbed and sheltered area of the site or adjacent land.</p>	<p>which would be beneficial for hedgehogs: Planting fruit bearing trees and species-rich grassland to increase foraging opportunities. Creation of brash piles or installation of hedgehog houses in shady areas. Installation of gaps under boundary fencing to enable hedgehogs to move freely through the site.</p>
<p>Otter and water vole</p>	<p>The site has negligible value for otter and water vole due to a lack of watercourses on or adjacent to the site or riparian habitat.</p>	<p>No impacts are anticipated on otters as a result of the proposed development.</p>	<p>None.</p>	<p>None.</p>
<p>Birds</p>	<p>The site contains areas of tree, shrub and hedgerow habitat that could be used by common garden bird assemblages. A group of chaffinches were observed in the garden of Plot 1 during the survey. Robins and blackbirds were also observed. Thick ivy present on fence lines could be used by small nesting birds like wrens. The numerous outbuildings and sheds could provide shelter and nesting habitat for robins, tits and wrens. Bird feeders and nest boxes were present in most gardens.</p>	<p>The proposed development will result in the loss of 3.375ha of low value grassland and various ornamental trees, hedgerows and shrubs and areas of dense ivy. Site clearance will result in the removal of bird houses and feeding stations. As birds become accustomed to areas where food and shelter is available, the removal of these food resources and habitats will have a small impact on local bird populations. The proposed development could result in the destruction or the disturbance and</p>	<p>Works should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation 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.</p>	<p>The installation of a minimum of one bird box per garden area will replace lost breeding habitat. These can be installed on new buildings, fencelines or trees. Schwegler No 17 Swift Nest Box (buildings) Schwegler 1SP Sparrow Terrace (buildings) Schwegler 1B Nest Boxes (trees)</p>

		<p>subsequent abandonment of active bird nests.</p>		<p>Schwegler 2H Robin Boxes (trees)                  Woodstone Nest Box (buildings 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 and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree 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>
<p>Invertebrates</p>	<p>The site has low value for invertebrates due to a lack of species diversity within the grassland to support soil invertebrates. There are no areas of natural dead or decaying wood for saproxylic species. The majority of shrub species are non-native and flowering shrubs have complex flowers that are unsuitable for some pollinating insects.                  The site is within the habitat management target area for brown hairstreak butterfly.</p>	<p>The proposed development will result in the loss of 3.375ha of low value grassland and various ornamental trees, hedgerows and shrubs. The loss of such habitats is likely to be inconsequential to local invertebrate populations owing to their low value and the presence of more extensive habitat locally.</p>	<p>None.</p>	<p>The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for invertebrates:                  The installation of bee bricks into the fabric of new buildings.                  Native tree, hedgerow and shrub planting, to</p>

				<p>include blackthorn which is required by the brown hairstreak butterfly to complete its life cycle.                  Creation of wildflower grassland.                  A green roof on new buildings.                  Retention of deadwood on the site.</p>
--	--	--	--	--

## 5.0 Bibliography

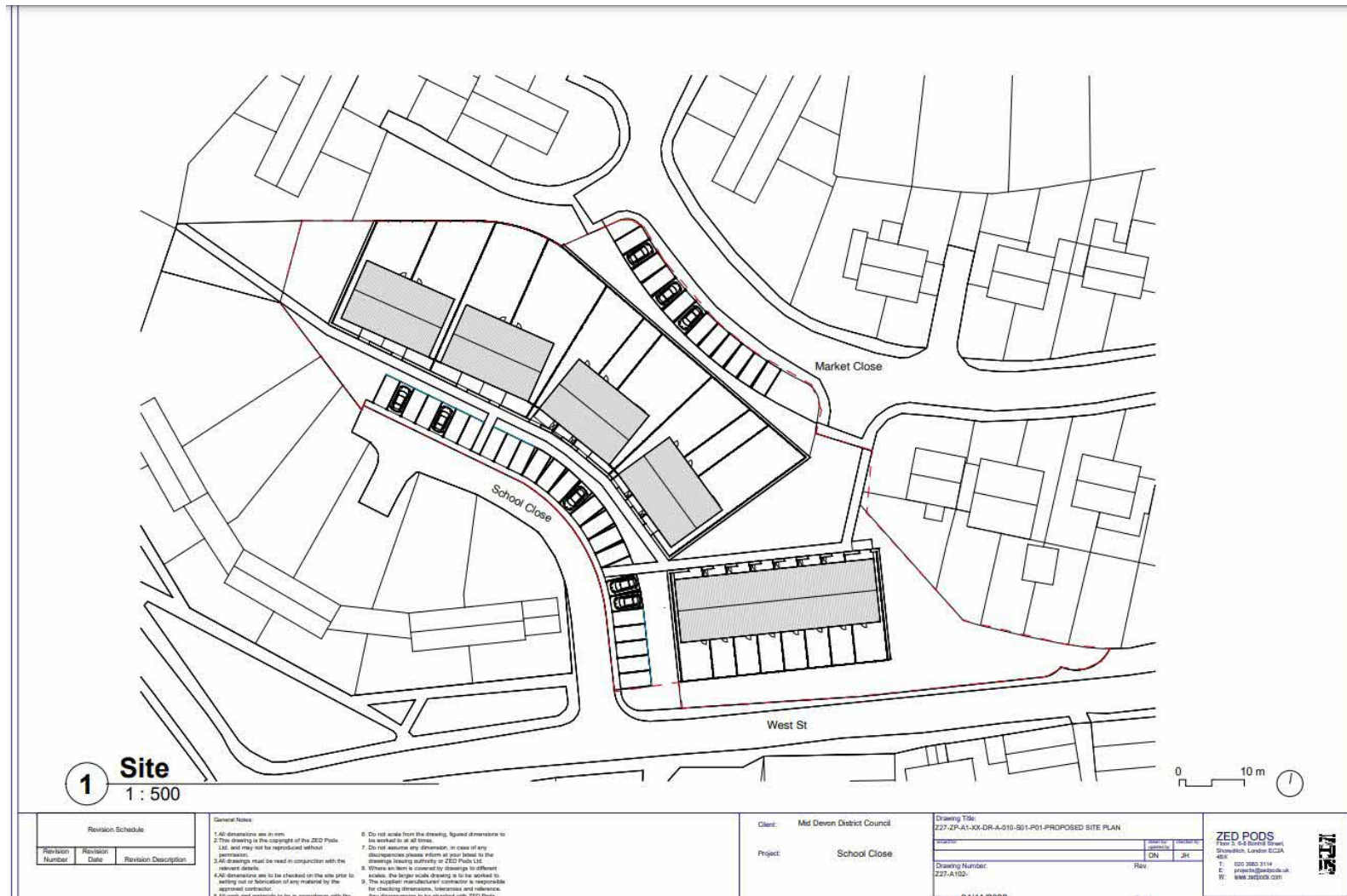
- Biggs, J., Ewald, N., Valentini, A., Gaboriaud, C., Dejean, T., Griffiths, R., Foster, J., Wilkinson, J., Arnell, A., Brotherton, P., Williams, P. and Dunn, F. (2014). Using eDNA to Develop a National Citizen Science-based Monitoring Programme for the Great Crested Newt (*Triturus cristatus*). *Biological 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*, 3<sup>rd</sup> 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.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 05/12/2022.
- 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/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>
- 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](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](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](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 05/12/2022.
- 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 05/12/2022.
- 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.

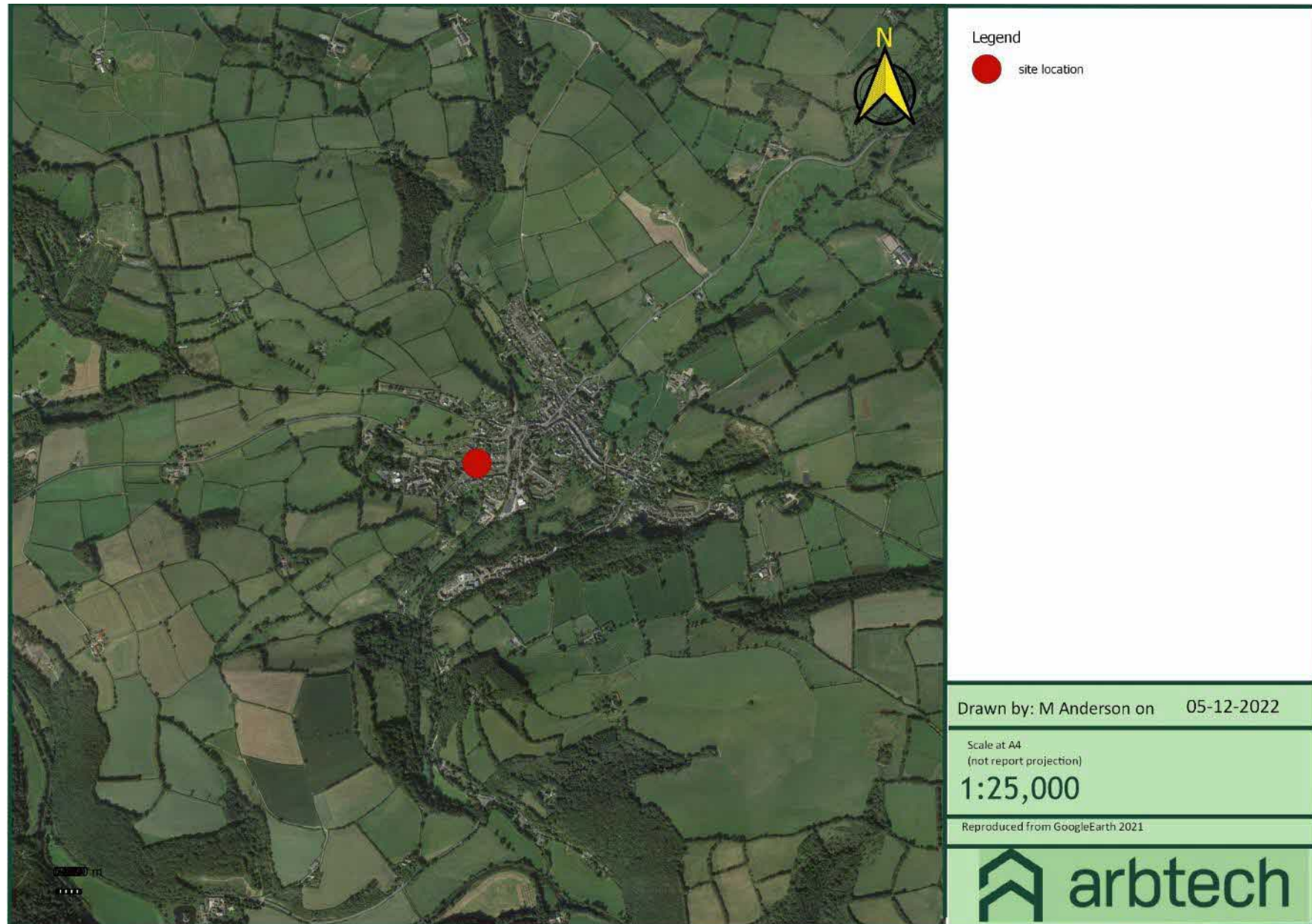
UK Habitat Classification Working Group (2018). UK Habitat Classification User Manual at <http://ecountability.co.uk/ukhabworkinggroup-ukhab>

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

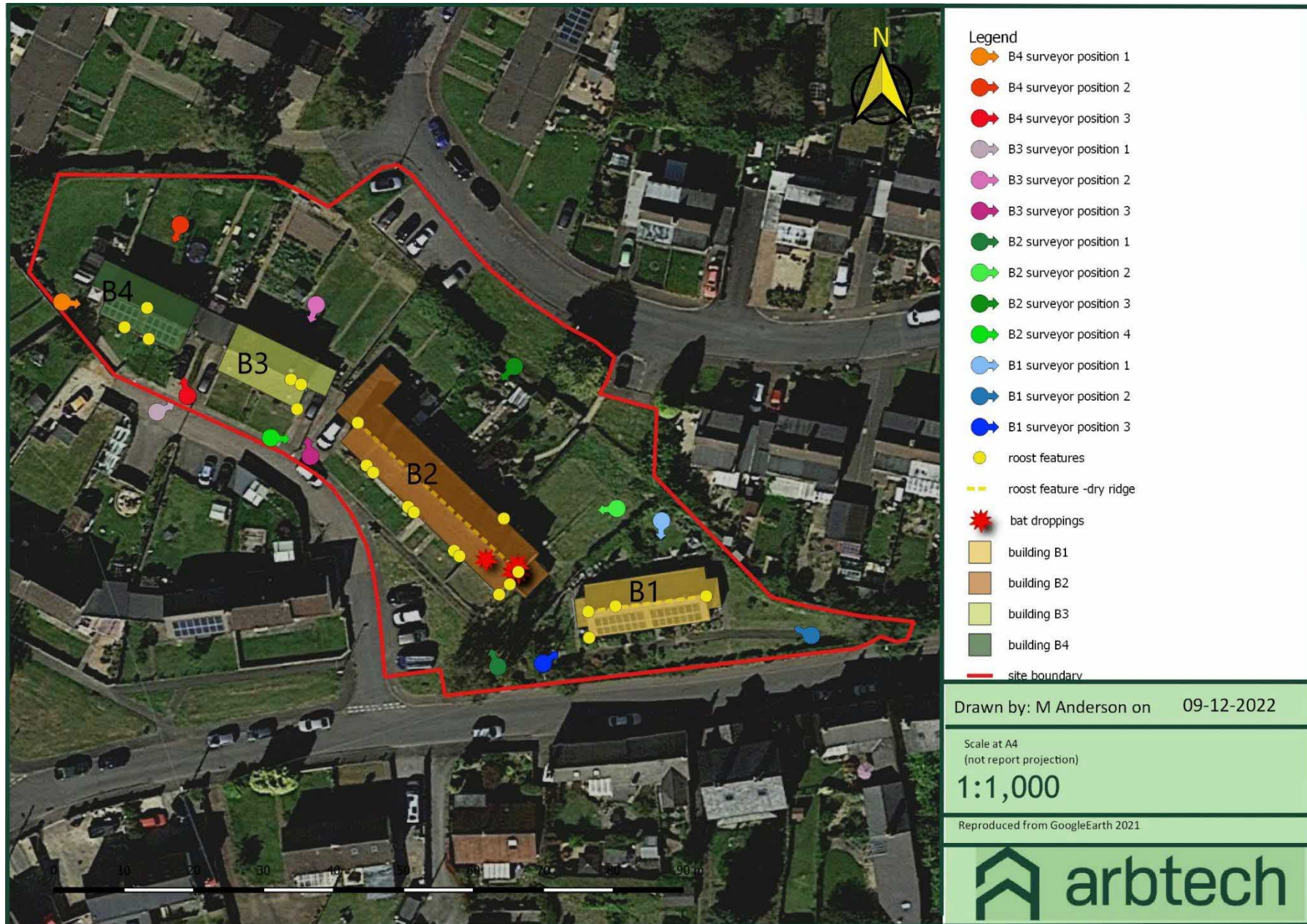




Appendix 3a: Habitat Survey Plan



Appendix 3b: PRA Survey Plan



## Appendix 4: Legislation and Planning Policy

### LEGAL PROTECTION

#### National and European Legislation Afforded to Habitats

##### International Statutory Designations

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

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

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

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

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

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

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

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and recognises the importance of wetland ecosystems in relation to global biodiversity conservation. The Convention refers to wetlands as "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres". However, they may also include riparian and coastal zones. Ramsar sites are statutorily protected under the Wildlife & Countryside Act 1981 (as amended 01.04.1996) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. The Government in England and Wales has issued policy statements which ensure that Ramsar sites are afforded the same protection as areas designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs). Further provisions for the protection and management of SSSIs have been introduced by the Nature Conservation (Scotland) Act 2004.

### National Statutory Designations

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

### Local Statutory Designations

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

### Non- Statutory Designations

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

Regionally Important Geological Sites (RIGs) are the most important geological and geomorphological areas outside of statutory designations. These sites are also a material consideration during the determination of planning applications.

### The Hedgerow Regulations 1997

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

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

### National and European Legislation Afforded to Species

The Conservation of Habitats and Species Regulations 2017 (as amended)

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

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

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

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1979, implemented 1982) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CRoW) Act (2000).

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

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

## Badgers

Badgers *Meles meles* are protected under The Protection of Badgers Act 1992 which makes it an offence to:

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

Effects on development works:

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

## Birds

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

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

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and are commonly referred to as “Schedule 1” birds.

This affords them protection against:

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

Effects on development works:

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

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

## Amphibians and Reptiles

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

- Deliberate killing, injuring or capturing of Schedule 2 species
- Deliberate disturbance of species in such a way as:

- To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
- To impair their ability to hibernate or migrate
- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

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

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

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

- Intentionally or recklessly kill or injure these species.

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect the breeding sites or resting places amphibian and reptile species protected under Habitats Regulations. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the WCA.

#### Water Voles

The water vole *Arvicola terrestris* is fully protected under Schedule 5 of the WCA. This makes it an offence to:

- Intentionally kill, injure or take (capture) water voles
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection
- Intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection

Effects on development works:

If development works are likely to affect habitats known to support water voles, the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) must be consulted. It must be shown that means by which the proposal can be re-designed to avoid contravening the legislation have been fully explored e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable, and measures to ensure minimal habitat loss. Conservation licences for the capture and

translocation of water voles may be issued by the relevant countryside agency for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will then only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of works.

## Otters

Otters *Lutra lutra* are fully protected under the Conservation Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

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

Otters are also currently protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works likely to affect otter breeding or resting places (often referred to as holts, couches or dens) or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, and rear young). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored

## Bats

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

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



Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will be required for works are likely to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Hazel Dormice

Hazel dormice *Muscardinus avellanarius* are fully protected under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

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

Dormice are also protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works:

Works which are liable to affect a dormice habitat or an operation which are likely to result in an illegal level of disturbance to the species will require a European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e. Natural England, Natural Resources Wales (NB: Hazel Dormouse are entirely absent from Scotland)). The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

White Clawed Crayfish

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

- Protected against intentional or reckless taking

Protected against selling, offering or advertising for sale, possessing or transporting for the purpose of sale

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

A licence to handle crayfish (therefore survey work) in England

A licence for the keeping of crayfish in England and Wales with an exemption for Signal crayfish (England).

People in the post-code areas listed with crayfish present prior to 1996 do not need to apply for consent for crayfish already established. It does not, however, allow any new stocking of non-native crayfish into waterbodies. Consent for trapping of non-native crayfish for control or consumption is most likely to be granted in Thames and Anglian regions in the areas with "go area" postcodes.

Harvesting of crayfish is prohibited in much of England and in any part of Scotland and Wales.

Effects on development works:

The relevant countryside agency (i.e. Natural England, Natural Resources Wales, Scottish Natural Heritage) will need to be consulted about development which could impact on a watercourse or wetland known to support white clawed crayfish. Conservation licences for the capture and translocation of crayfish can be issued if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of the works.

#### Wild Mammals (Protection Act) 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

#### Legislation Afforded to Plants

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person from:

Intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only)

Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof

In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:

Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species

Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

Effects on development works:

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

Invasive Species

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

Japanese knotweed *Fallopia japonica*

Giant hogweed *Heracleum mantegazzianum*

Himalayan balsam *Impatiens glandulifera*

Effects on development works:

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

Injurious weeds

Under the Weeds Act 1959 any 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.

## LOCAL PLANNING POLICY

### Mid Devon Local Plan 2013-2033

The Mid Devon Local Plan can be viewed here: [https://www.middevon.gov.uk/media/350631/local-plan-review-final-adopted-version\\_accessible.pdf](https://www.middevon.gov.uk/media/350631/local-plan-review-final-adopted-version_accessible.pdf)

The following planning policies have implications in relation to biodiversity and the proposed development:

Policy S9 section f. The protection and enhancement of designated sites of international, national and local biodiversity and geodiversity importance. On both designated and undesignated sites, development will support opportunities for protecting and enhancing species populations and linking habitats. If significant harm resulting from development cannot be avoided impacts should be adequately mitigated. Compensation measures will only be considered where appropriate as a last resort.

Development Strategy and Strategic Policies

2.56 Changes in land use, agricultural practices and new development are all threats to the quality of Mid Devon's environment unless properly managed, while the effects of climate change will provide both challenges and opportunities. New development will be located, designed and constructed in ways that reinforce local distinctiveness, respond to climate change and provide positive solutions for protecting and enhancing environmental assets. Mitigation measures will be sought where appropriate, to achieve neutral or positive effects on the environment, including ecological measures which would help to deliver Water Framework Directive objectives.

Devon Biodiversity Action Plan 2009

The Devon Biodiversity Action Plan (2009 update) can be viewed here: <https://www.devon.gov.uk/environment/wildlife/the-devon-biodiversity-action-plan-bap>

The following habitats have been identified on or surrounding the site (based on the site survey and a review of the magic.gov.uk database) and are included in the plan:

Habitats Species rich hedgerow, flower rich meadows and pastures

The following species could be present on the site or in the surrounding area (based on the site survey and a review of the magic.gov.uk database) and are included in the plan:

Species, Dormouse, Otter, Greater Horseshoe bat, Barn Owl, Cirl bunting, Nightjar

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.

