



Indigo Ltd
S u r v e y s

Wayside

Preliminary Ecological Appraisal (PEA)

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Revision 1

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In line with Chartered Institute of Environmental and Ecological Management (CIEEM) recommendations the findings of this survey are deemed valid for 18 months from the date of the survey.

1. Summary

Purpose	Planning permission is being sought for the refurbishment of an existing building and the demolition and rebuild of a ruin, including associated landscaping works, at Wayside in Widnes to form a new residential dwelling on the site. A Preliminary Ecological Appraisal and subsequent Biodiversity Net Gain calculations were commissioned to support the application for planning permission.
Results	No Habitats of Principal Importance were identified within the surveyed area. The habitats present were previously a residential garden that has remained unmanaged for a significant time, allowing scrub species to become dominant. The ecological receptors on site include: - Existing records of amphibians in the surrounding area with terrestrial habitat on site, - Potential for roosting bats to be present in one of the buildings and the trees on site, - A high value foraging and commuting habitat for bats on and around the site, - Habitats suitable for birds to nest and forage on site, - Existing records of hedgehogs in the area with suitable habitats on site, - Existing records of reptiles in the area and suitable refugia on site, - One invasive non-native plant species on site.
BNG	The site baseline equates to 5.03 habitat units, 0.03 hedgerow units and 0.0 watercourse units. The proposed development will include the demolition of the ruined building with a new building of the same size being constructed on the site. The remaining areas of the site, including the trees and hedgerows, will be retained within the curtilage of the residential property. The post development figures equate to 4.82hu, a 4.08% loss and deficit of 0.71 units to achieving 10% gain, and no change in hedgerow or watercourse units.
Recommendations	- Put measures in place to protect the adjacent Local Wildlife Site, - Look at options to offset the deficit in biodiversity units and achieve a 10% gain on the site, - Implement precautionary working methods for amphibians and reptiles, - Implement precautionary working methods for badgers, - Carry out further bat surveys of building B2 prior to works commencing on the building, - Carry out further bat surveys ahead of any tree pruning or removal, - Retain the vegetation on site and implement a sensitive lighting scheme or carry out further bat surveys ahead of the development, - Carry out further bird surveys ahead of works in the nesting season, - Implement precautionary working methods for hedgehogs, - Implement strict control measures for rhododendron, - Consider enhancing the site for bats, birds and hedgehogs.
Conclusions	The proposed works will retain the habitats currently present on site but will leave the habitats within the curtilage of a residential property, and therefore unsecured and disturbed. Therefore, the development will cause an overall loss in biodiversity on the site. If the development is preceded by further surveys, where required, and covered by precautionary working methods, where necessary, the overall impact on protected species is likely to be minimal.

2. Introduction

2.1. Purpose

2.1.1. Planning permission is being sought for the refurbishment of an existing building and the demolition and rebuild of a ruin, including associated landscaping works, at Wayside in Widnes to form a new residential dwelling on the site.

2.1.2. A Preliminary Ecological Appraisal (PEA) and subsequent Biodiversity Net Gain (BNG) calculations were commissioned to support the application for planning permission.

2.2. Site Description and Location

2.2.1. The site comprises Wayside, an existing derelict building, and the land associated with the building, which extends to 0.25 hectares (ha).



Figure 1: Showing the extent of the area covered by the survey.

2.2.2. The site was previously a residential property but has been derelict for approximately 10 years with the building ruin appearing to have been empty and in a deteriorating condition since approximately 2014 and the more modern building having been constructed on the site during approximately 2018.

2.2.3. Figure 2 shows the site during 2012, when it was an occupied residential property, with Figure 3 showing the site during 2015, at which point the building was in a significantly deteriorated condition, with the site assumed to no longer be occupied as a residential property.



Figure 2: Aerial photography from 2012.



Figure 3: Aerial photography from 2015

2.2.3. The land immediately surrounding the site comprises further areas of land associated with Wayside to the south, a small public highway to the east and Pex Hill Country Park Local Wildlife Site (LWS) to the north and west.

2.3.4. The wider surrounding area comprises open countryside to the north, east and west, including Pex Hill Country Park, which is located to the north of the site, with the town of Widnes located to the south. The M62 motorway runs east to west 1.1km to the north of the site.



Figure 4: Showing the site in context with the wider surrounding area.

2.3. Proposals

2.3.1. The proposals are to refurbish an existing building on the site and to demolish and rebuild a ruin, with associated landscaping works around the buildings. The works will convert the site into a residential property and gardens.

2.3.2. Plans showing the proposed site layout are included in Appendix IV of this report.

3. Methodology

3.1. Desk Study

3.1.1. A desk study was carried out in order to identify existing records of protected or notable species or habitats within 2km of the survey area.

3.1.2. Records of locally designated sites and existing records of protected species were requested from Merseyside BioBank and RECORD, due to the location of the site on the boundary between the two data centres.

3.1.3. The MAGIC website was searched for records of statutory or non-statutory sites within 2km of the survey area and for records of existing European Protected Species (EPS) licence within the surrounding area.

3.1.4. The area within 500m of the site was searched for waterbodies using publicly accessible mapping including Ordnance Survey, Google Earth and the MAGIC website.

3.2. Field Study

3.2.1. A field survey of the site was undertaken by Steven Whitcher (MCIEEM) on the 20th February 2025. The Preliminary Ecological Appraisal (PEA) was carried out in accordance with the industry standard and mapped using UKHab 2.0 Classifications (2023).

3.2.2. The weather at the time of the survey was cloudy with occasional showers, a light breeze (BWS-1/2) and a temperature of 12°C.

3.2.3. During the survey all habitats were noted, including dominant species, mapped and notable ecological features were target noted.

3.2.4. The survey also looked for evidence of protected or notable fauna species or invasive non-native plant species and followed specific survey guidelines, where applicable, including:

- Checking all buildings, trees and structures for bat roosting potential in line with the Bat Conservation Trust Good Practice Guidelines, 4th edition (*Collins 2023*), BTHK Bat Roosts in Trees (*BTHK 2018*) and BRHK Bat Roosts in Rock (*BRHK 2021*).
- Assessing all accessible ponds within 500m of the surveyed area using the Habitat Suitability Index (HSI) assessment criteria (*Oldham et al. 2000*).
- Assessing the habitats on site for their suitability to support protected or notable species, including but not limited to, badgers (*Harris et al 1989*), water voles (*Strachan et al 2011*), otters (*Channin, 2003*), crayfish, nesting birds (*BBS,BTO*), reptiles (*Froglife 1999*), hedgehogs and hazel dormice.

3.3. Biodiversity Net Gain

3.3.1. The Statutory Biodiversity Metric (*August 2024*) was utilised to assess the baseline and post intervention biodiversity units on site. The field survey was undertaken as described above and habitats classified using UKHab 2.0 classifications for more streamlined input into the metric. During the field survey habitat condition assessments were carried out in line with Statutory Biodiversity Metric guidance (Statutory Biodiversity Metric User Guide).

3.3.2. On completion of the site survey the habitats present on the site were input into the Statutory Biodiversity Metric, providing baseline biodiversity units for the site.

3.3.3. Habitat areas were calculated through habitat mapping prepared through QGIS. Condition was based on the results of the condition assessment carried out during the field survey and strategic significance was assessed through information gained from the appropriate local authority planning policy.

3.3.4. Post intervention biodiversity units were calculated based on development plans for the site, as included in the Appendices of this report.

3.4. Limitations/Constraints

3.4.1. This survey was carried out to CIEEM methodologies and therefore provides an overview of the habitats present on the site with dominant, notable or indicator species within those habitats noted. As such the species lists included are intended to be sufficient to confidently assess habitat condition but are not intended to provide an exhaustive list of all species present.

3.4.2. Works were ongoing on the site at the time of the survey, including renovation works on the existing building (B1) and site clearance works to open up the site and provide vehicle access and parking. Therefore, the site was assessed in the condition it was found at the time of the survey.

3.4.3. The site had been subject to some clearance works at the time of the survey. BNG requires that any works carried out that reduce the biodiversity value after 30th January 2020 are disregarded and that the earlier baseline is utilised in the calculations. Historic aerial images of the site show that the site was a residential property until approximately 2014 and has been disused since. The site has been subject to occasional disturbance since before 2020, with a new building constructed on the site during approximately 2018. Therefore, due to the previous use and occasional disturbance of the site over the last 10-15 years, it was considered that preparing the calculations based on the current baseline, which includes a mixture of natural and disturbed habitats, was indicative of the biodiversity value of the site over the last ten years.

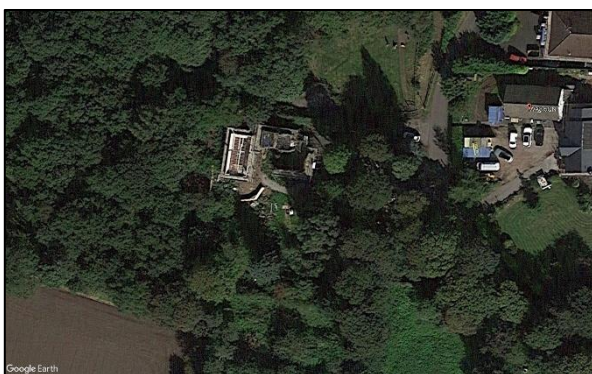


Figure 5: Aerial photography from 2019.



Figure 6: Aerial photography from 2021.

3.4.4. Renovation works were ongoing on the more modern building on site (B1) at the time of the survey. Due to the lack of internal roof voids or other internal features the building was

inspected from the exterior only, which is not considered a significant constraint to the findings of the survey.

3.4.5. The ruined building (B2) was found to be in a deteriorating condition throughout and therefore only areas of the building accessible from ground level were directly inspected during the survey. This is considered a constraint to the findings for that building.

4. Results and Interpretation

4.1. Designated Sites

4.1.1. No statutory designated sites were identified within the 2km search area on the MAGIC website with the closet site comprising Clinton Wood Local Nature Reserve (LNR), which is located 3.5km to the south.

4.1.2. Merseyside BioBank returned records of six non-statutory designated sites within the 2km search area.

4.1.3. RECORD returned a single record of a non-statutory designated site within the 2km search area.

Table 1: Non-statutory sites within 2km.

Site Name	Designation	Reason for Designation	Location
Pex Hill Country Park	Local Wildlife Site (LWS)	Habitats: Grassland, woodland, heath Species: Bluebell	Immediately to the north and west
Alder Brook	LWS	Habitats: Running water	600m south
George's Wood and adjacent land	LWS	Habitats: Woodland	1.3km west
Rough Head Wood	LWS	Habitats: Woodland, standing water, running water	1.6km northwest
Blundell Hills Golf Course	LWS	Habitats: Standing water, rock exposure Species: Bluebell	1.7km northwest
The Rough Woodland	LWS	Habitats: Woodland Species: Bluebell	1.8km north
Land off Lunts Heath Road	LWS	Unknown	1.8km east

4.1.4. The site lies immediately adjacent to Pex Hill Country Park LWS with the habitats on site functionally linked to the habitats in the LWS, notably the woodland to the west. Therefore, works on site may have an impact on the LWS if the works cause run-off onto, or the disturbance of, the surrounding habitats, or impact the functionally linked vegetation.

4.1.5. The site lies within an Impact Risk Zone for Sites of Special Scientific Interest (SSSI). The impact risk lists rural residential developments but only where more than 50 units are being constructed. Therefore, there is no requirement to contact Natural England regarding the proposals.

4.2. Habitats

4.2.1. The habitats present within the surveyed area are outlined below and shown on the plan in Appendix I of this report. Appendix III includes species lists for each habitat.

4.2.2. h3h-32 Mixed scrub – scattered trees (0.117ha)

4.2.2.1. The site was previously a residential property but has remained disused and unmanaged for over ten years and therefore scrub has become dominant on the majority of the site.

4.2.2.2. The scrub includes species indicative of the previous residential use of the site, including eucalyptus (*Eucalyptus* sp.), laurel (*Laurus nobilis*) and daffodil (*Narcissus* sp.), although a range of native scrub species and sapling trees, including bramble (*Rubus fruticosus*), elder (*Sambucus nigra*) and ivy (*Hedera helix*), are also present.



Figure 7: Looking south across the areas of scrub.



Figure 8: Scrub present on the site.

4.2.2.3. The scrub shows signs of recent disturbance from personnel and machine movements around the site with some signs of vegetation clearance, including strimming.

4.2.2.4. The scrub passes two condition criteria and was therefore considered to be in ‘poor’ condition.

Table 2: Condition assessment criteria for scrub.

	Condition Criteria	Meets Criteria?
A	The parcel represents a good example of its habitat type – the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range). - At least 80% of scrub is native, - There are at least three native woody species, - No single species comprises more than 75% of the cover (except hazel, common juniper, sea buckthorn (only in its restricted native range), or box, which can be up to 100% cover).	No
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	Yes
C	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA) and species indicative of sub-optimal condition make up less than 5% of ground cover.	No
D	The scrub has a well-developed edge with scattered scrub and tall grassland and/or forbs present between the scrub and adjacent habitat.	No
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	Yes

4.2.2.5. Scattered trees

4.2.2.5.1. Nineteen scattered trees are present throughout the areas of scrub. The trees are dominated by native species, including lime (*Tilia* sp.), oak (*Quercus* sp.) and poplar (*Populus* sp.), although occasional ornamental trees, including eucalyptus and Leyland cypress (*Cupressus x leylandii*) are also present.



Figure 9: Native scattered trees.



Figure 10: Scattered trees, including ornamental species.

4.2.2.5.2. The trees vary in condition across the site with the plan in Appendix I showing the size and condition for each tree. Table 3 shows indicative condition scores for the trees present on the site.

Table 3: Condition assessment criteria for individual trees.

	Condition Criteria	Meets Criteria?	
		Yes	No
A	The tree is a native species (or at least 70% within the block are native species).	Yes	No
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5m wide (individual trees automatically pass this criterion).	Yes	Yes
C	The tree is mature (or more than 50% within the block are mature).	Yes	No
D	There is little or no evidence of adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Yes	Yes
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No	No
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes	Yes

4.2.3. u1-510,32 Bare ground – scattered trees (0.08ha)

4.2.3.1. There are several areas of disturbed ground within the site, with aerial photography showing that the areas have been occasionally disturbed throughout the last 5-10 years.



Figure 11: Bare ground in the centre of the site.



Figure 12: Bare ground to the east of the buildings.

4.2.3.2. At the time of the survey the areas of disturbed ground had been recently scraped and therefore comprised areas of bare earth.

4.2.3.3. The bare ground passes one of the condition criteria and was therefore assessed to be in 'poor' condition.

Table 4: Condition assessment criteria for urban habitats.

	Condition Criteria	Meets Criteria?
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	No
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	No
C	Invasive non-native species (Schedule 9 of WCA) and others which are to the detriment of native wildlife (using professional judgement) cover less than 5% of total vegetated area. To achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Yes

4.2.3.4. Scattered trees

4.2.3.4.1. Three scattered trees were present in the areas of bare ground, including lime and sycamore (*Acer pseudoplatanus*).

4.2.3.4.2. The trees all passed four condition criteria and were therefore assessed to be in 'moderate' condition. The plan in Appendix I shows the size and condition of the trees present on site.

Table 5: Condition assessment criteria for individual trees.

	Condition Criteria	Meets Criteria?
A	The tree is a native species (or at least 70% within the block are native species).	Yes
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5m wide (individual trees automatically pass this criterion).	Yes
C	The tree is mature (or more than 50% within the block are mature).	Yes
D	There is little or no evidence of adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Yes
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	No

4.2.4. u1b5 Buildings (0.007ha)

4.2.4.1. Two buildings are present on site, although one is in a ruined condition and is classified separately below. The buildings are covered in more detail in section 4.3.3.

4.2.4.2. There is no condition assessment for buildings with the habitat automatically assigned a condition of 'N/A'.

4.2.5. u1b5-825 Buildings – Ruined buildings (0.014ha)

4.2.5.1. One ruined building is present on the site, comprising the old residential property that has been disused and in a deteriorating condition since approximately 2014. The buildings on site are covered in more detail in section 4.3.3.

4.2.5.2. There is no condition assessment for buildings with the habitat automatically assigned a condition of 'N/A'.



Figure 13: The more modern building on the site.



Figure 14: The ruined building.

4.2.6. u1b6 Other developed land (0.036ha)

4.2.6.1. The site includes areas of sealed surface habitat that are used for access and parking around the buildings.

4.2.6.2. There is no condition assessment for other developed land with the habitat automatically assigned a condition of 'N/A'.

4.2.7. h2b Non-native and ornamental hedgerow (30m)

4.2.7.1. Two lengths of non-native and ornamental hedgerow are present on the site. The hedgerows comprise a 17m length of over-mature Leyland cypress hedgerow running north to south across the eastern side of the site and a 13m length of beech (*Fagus sylvatica*) hedgerow adjacent to the site access.



Figure 15: The over-mature Leyland cypress hedgerow.



Figure 16: The ornamental beech hedgerow.

4.2.7.2. There is no condition assessment for non-native and ornamental hedgerows with the habitat automatically assigned a condition of ‘poor’.

4.2.8. u1e Built linear feature (164m)

4.2.8.1. The site boundary comprises a mixture of fencing types in a variety of conditions.

4.2.8.2. Built linear features are not included in the statutory metric and therefore there is no condition assessment for the habitat.

4.3. Biodiversity Offsetting

4.3.1. The site baseline equates to 5.03 habitat units (hu), 0.03 hedgerow units (heu) and 0.0 watercourse units.

Table 6: Summary of the baseline habitats and habitat units

UKHab Code	UKHab Classification	Condition	Area (ha)	Metric Classification	Habitat Units	Impact	Comments
h3h	Mixed scrub	Poor	0.117	Mixed scrub	0.54	Removed	Converted to areas of garden
u1-510	Bare ground	Poor	0.08	Bare ground	0.18	Removed	-
u1b5	Buildings	N/A	0.21	Developed land; sealed surface	0.0	0.007 retained	The ruined building will be removed.
u1b6	Other developed land	N/A	0.036	Developed land; sealed surface	0.0	Removed	-
-32	Scattered trees	Good	0.2524	Rural tree	3.48	Retained	-
-32	Scattered trees	Moderate	0.0896	Rural tree	0.82	Retained	-

Table 7: Summary of the baseline hedgerows and hedgerow units

UKHab Code	UKHab Classification	Condition	Length (m)	Metric Classification	Hedgerow Units	Impact	Comments
h2b	Non-native and ornamental hedgerow	Poor	30	Non-native and ornamental hedgerow	0.03	Retained	-

4.3.2. The proposed development will include the demolition of the ruined building with a new building of the same size being constructed on the site. The remaining areas of the site will be retained but will lie within the curtilage of the residential property and have therefore been classified as vegetated garden, with the trees on site being retained in the garden.

4.3.3. The hedgerows present on site will be retained during the development.

Table 8: Summary of the habitat creation and habitat units

Metric Classification	Areas (ha)	Condition	Habitat Units	Comments
Developed land; sealed surface	0.014	N/A	0.0	The new building constructed on the site.
Vegetated garden	0.233	N/A	0.52	The site will be converted into a residential garden.

4.3.4. The post development figures equate to 4.82hu, a 4.08% loss and deficit of 0.71 units to achieving 10% gain, and no change in hedgerow units.

4.3.5. The results also show a trading summary error due to the loss of medium distinctiveness biodiversity units associated with the mixed scrub, which are not offset with the same distinctiveness habitat in the development proposals.

4.4. Fauna

4.4.1. Amphibians

4.4.1.1. Merseyside BioBank returned abundant records of amphibian species within the 2km search area, although no records specific to the surveyed site or the immediate surrounding area. The closest records refer to the presence of common frog (*Rana temporaria*) and common toad (*Bufo bufo*) at Pex Hill, 250m to the north. The closest records of great crested newt (*Triturus cristatus*) are located 750m to the north at Cronton Wood.

4.4.1.2. RECORD returned abundant records of amphibian species within the 2km search area, although no records specific to the surveyed site or the immediate surrounding area. The closest records refer to the presence of common frog 300m to the south with the closest record of great crested newts relating to the presence of the species along Norlands Lane, 600m to the east.

4.4.1.3. No records of granted Natural England licences for great crested newts were identified within the 2km search area on the MAGIC website.

4.4.1.4. Three ponds were identified within 500m of the site on maps of the area, as shown in Figure 17.

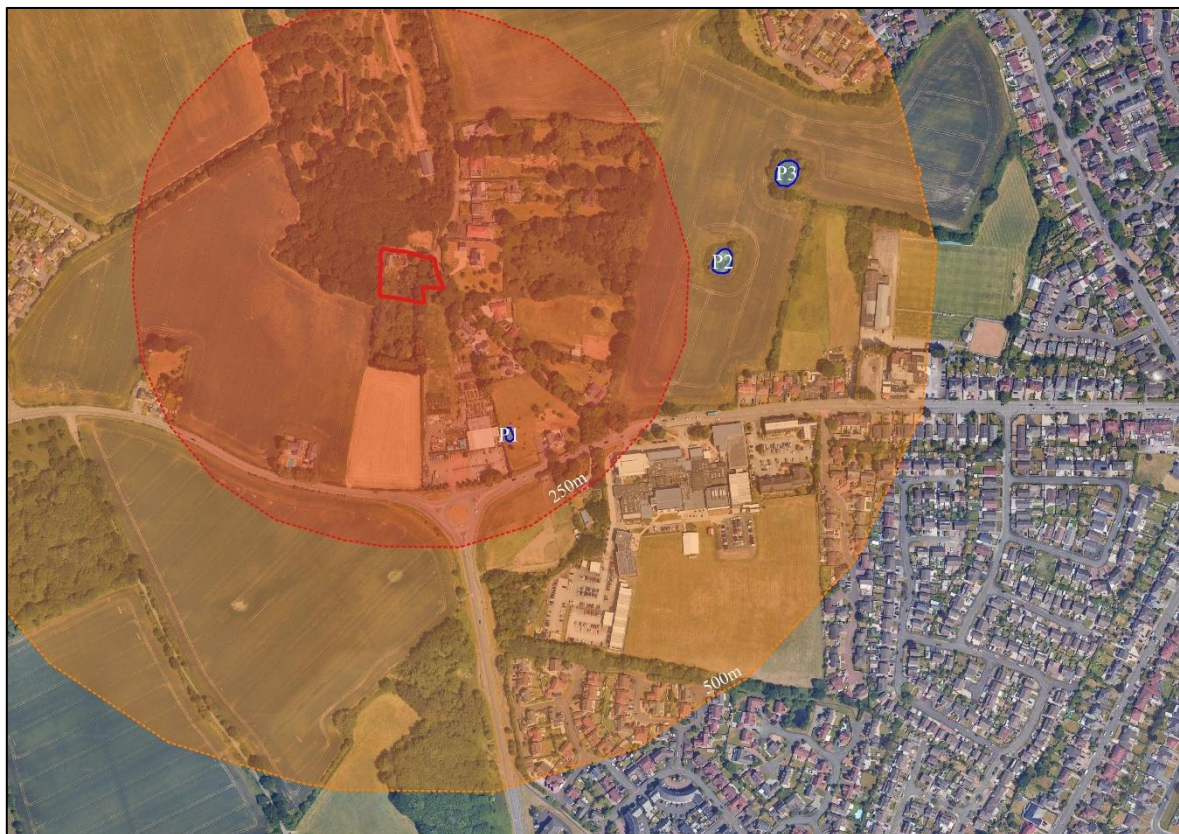


Figure 17: Showing the site, 250m and 500m buffers and the ponds within 500m of the site.

4.4.1.5. The ponds comprise a garden pond located in a large garden 190m to the south and two field ponds located in arable farmland 310m and 390m to the east.

4.4.1.6. The ponds are all located on private land with no public access to the ponds, therefore a Habitat Suitability Index (HSI) assessment of the ponds was not carried out as part of the survey.

4.4.1.7. The site provides a high value terrestrial habitat for amphibians due to the areas of scrub present on site and the presence of piles of stone (T1) and other materials. No terrestrial amphibians were identified on the site during the survey.



Figure 18: Piles of stone providing suitable terrestrial habitat.

Figure 19: Suitable terrestrial habitat in the scrub.

4.4.1.8. Due to the presence of ponds in the areas around the site and the presence of existing records of amphibians in the area it is considered likely that amphibian species are present in the wider landscape. The site provides suitable terrestrial habitat for amphibians but is separated from the ponds to the east and north by further areas of suitable terrestrial habitat. Therefore, given the long-term disturbance on the site, it is considered unlikely that the proposed development will have a significant impact on amphibian species, with precautionary measures implemented during any further works reducing the likely impacts.

4.4.2. Badgers

4.4.2.1. Merseyside BioBank returned occasional records of badger (*Meles meles*) within the 2km search area, although no records specific to the surveyed site or the immediate surrounding area. The closest records are non-specific records within grid square SJ5090, which is located to the north of the site.

4.4.2.2. RECORD did not return any existing records of badger within the 2km search area.

4.4.2.3. No badger setts or other badger field signs were identified within the surveyed site. Therefore, if suitable precautions are put in place during the development the impact on badgers is considered likely to be negligible.

4.4.3. Bats

4.4.3.1. Merseyside BioBank returned abundant records of bat species within the 2km search area, although no records specific to the surveyed site or the immediate surrounding area. The closest records refer to the presence of common pipistrelle (*Pipistrellus pipistrellus*) at Cronton, 200m to the southeast.

4.4.3.2. RECORD returned abundant records of bat species within the 2km search area, although no records specific to the surveyed site or the immediate surrounding area. The closest records refer to the same common pipistrelle records as Merseyside BioBank, 200m to the southeast.

4.4.3.3. No records of granted Natural England licences for bats were identified within the 2km search area on the MAGIC website.

4.4.3.4. Two buildings are present on the site. Figure 20 shows the location of the buildings and the references used for the buildings throughout this report.



Figure 20: The buildings present on site, including references used throughout this report.

4.4.3.5. A brief description and survey results for each of the buildings are included below.

4.4.3.6. Building B1

4.4.3.6.1. Building B1 comprises a residential building that was constructed on the site during approximately 2018. At the time of the survey the building was empty and renovation works were ongoing on the building.

4.4.3.6.2. The building comprises a two-storey brick and rendered building with uPVC windows and doors. The soffits around the building comprise boxed uPVC units.

4.4.3.6.3. The roof of the building comprises a slate pitched roof.

4.4.3.6.4. Internally there is no roof void, with the 1st floor extending into the roof void. Works were ongoing on the interior at the time of the survey.



Figure 21: Building B1, viewed from the south.



Figure 22: Building B1, viewed from the north.

4.4.3.6.5. The walls of the building were found to be in a good condition with no cracks in the brickwork or flaking areas of render. Occasional boarded windows were present on the ground floor with the remaining windows and doors intact and sealed.

4.4.3.6.6. The soffits around the building were intact and sealed to the walls, providing no potential access points.

4.4.3.6.7. The roof of the building was found to be in a good condition with tight fitting slates and the ridge tiles in place.

4.4.3.6.8. Overall, the building was assessed to provide negligible opportunities for roosting bats due to the lack of suitable voids around the building. Therefore, continued works on the building are considered unlikely to have an impact on roosting bats.

4.4.3.7. Building B2

4.4.3.7.1. Building B2 comprises a building ruin located immediately to the east of building B1. The building comprises a series of one and two storey stone and brick walls with various window and door openings. Scaffolding is present on the eastern elevation of the building.

4.4.3.7.2. The only roof structure present at the time of the survey was a number of purlins on a single storey section to the north of the building.



Figure 23: The exterior of building B2.



Figure 24: The interior of building B2.

4.4.3.7.3. Internally the building is open to the elements with occasional areas of scrub growing within the building, including buddleia (*Buddleja davidii*).

4.4.3.7.4. The walls of the building were all open to the elements due to the missing roof structure but displayed occasional small voids, such as pointing voids and joist pockets, that would provide suitable roosting opportunities for small numbers of bats.

4.4.3.7.5. The windows in the building varied with a mixture of stone, timber and uPVC frames present. The windows with timber and concrete lintels displayed voids between the lintels, providing access to the lower sections of the walls.



Figure 25: Voids in the walls of the building.



Figure 26: Gaps between lintels.

4.4.3.7.6. An old chimney flue was also identified to the north of the building, with stonework voids around the base of the chimney and potential crevices internally, within the flue.



Figure 27: The old fireplace present inside the building.



Figure 28: The chimney flue.

4.4.3.7.7. No bat field signs were identified around the accessible areas of the building during the survey.

4.4.3.7.8. Overall, building B2 was assessed to provide a low potential to support roosting bats due to the presence of suitable voids around the building, but also taking into account the ingress of weather and ongoing disturbance in close proximity to the building. Therefore, any

works that impact the building will potentially have a significant impact on roosting bats, if they are present in the building.

4.4.3.8. The trees on site were inspected from ground level and no Potential Roost Features (PRF) were identified, although some trees were obscured by evergreen foliage or covered in ivy, which may have caused PRF to be obscured. Therefore, the trees on site were assessed to provide FAR (Further Assessment Required) suitability to support roosting bats.

4.4.3.9. The current site plans show the trees on site as being retained and therefore there will be no direct impact on roosting bats, if they are present in the trees. In the event that trees removal or significant pruning works are carried out the works will potentially have a significant impact on roosting bats, if they are present in the trees.

4.4.3.10. The surveyed site was assessed to provide a high value foraging and commuting habitat for bats due to the presence of dense vegetation on site and the functional connectivity of the site into the wider landscape, which includes areas of woodland, tree lines and hedgerows in all directions. A thorough assessment of the foraging and commuting activity on and around the site was not carried out during the survey.

4.4.3.11. The development plans show the vegetation on site as being retained and therefore, if a sensitive lighting scheme is implemented during all phases of the development, the impact on foraging and commuting bats is considered likely to be minimal.

4.4.4. Birds

4.4.4.1. Merseyside BioBank returned abundant records of bird species within the 2km search area, including a record of song thrush (*Turdus philomelos*), an amber listed species on the UK Bird of Conservation Concern (BoCC) list, on land immediately to the north of the site. The records include a range of other species at Pex Hill, 200m to the north.

4.4.4.2. RECORD returned abundant records of bird species within the 2km search area, although no records specific to the surveyed site or the immediate surrounding area. The closest records refer to the presence of several species, including BoCC red list species such as skylark (*Alauda arvensis*) and linnet (*Linaria cannabina*), 300m to the south.

4.4.4.3. The site provides opportunities for a variety of bird species to nest and forage. Bird activity on the site was generally high, particularly throughout the areas of scrub, with several species present at the time of the survey, including several amber listed species on the UK BoCC list, such as song thrush, wren (*Troglodytes troglodytes*) and dunnock (*Prunella modularis*). Nest structures were also identified within the vegetation on site and in the chimney opening of building B2.

4.4.4.4. The proposed works will retain the majority of the habitats present on site and will therefore retain habitat suitable for birds to nest and forage. Any works that commence during the nesting season, which extends from March to September, may have a direct impact on nesting birds, if they are present in the buildings or vegetation.

4.4.5. Crayfish

4.4.5.1. Neither Merseyside BioBank nor RECORD returned any existing records of crayfish species within the 2km search area. No watercourses suitable for the species are present on site or in the immediate surrounding area and therefore there will be no impact on crayfish species during the proposed development.

4.4.6. Hedgehogs

4.4.6.1. Merseyside BioBank returned abundant records of hedgehog (*Erinaceus europaeus*) within the 2km search area, although no records specific to the surveyed site or the immediate surrounding area. The closest records refer to the presence of the species at Pex Hill, 150m to the north.

4.4.6.2. RECORD returned abundant records of hedgehog within the 2km search area, although no records specific to the surveyed site or the immediate surrounding area. The closest records are vague records of the species in grid square SJ5088, which contains the site.

4.4.6.3. The surveyed area provides a suitable habitat for hedgehogs with opportunities for the species to forage and seek shelter on site, although no hedgehog field signs were identified during the site survey.

4.4.6.4. The development plans show the retention of the scrub habitats and therefore, if suitable precautionary working methods are implemented during the development the impact on hedgehogs is considered likely to be minimal.

4.4.7. Invertebrates

4.4.7.1. Merseyside BioBank returned abundant records of invertebrate species within the 2km search area, although no records specific to the surveyed site or the immediate surrounding area. The closest records refer to the presence of Tormentil Mining Bee (*Andrena tarsata*) at Pex Hill, 150m to the north.

4.4.7.2. RECORD returned abundant records of invertebrate species within the 2km search area, although no records specific to the surveyed site or the immediate surrounding area. The closest records refer to the presence of several species of butterfly, including peacock (*Aglais io*) and small tortoiseshell (*Aglais urticae*) 300m to the south.

4.4.7.3. The site provides opportunities for invertebrate species, although no high value habitats considered likely to support significant invertebrate assemblages were identified. Therefore, it is considered unlikely that the proposed development will have a significant impact on invertebrate communities in the area.

4.4.8. Otters

4.4.8.1. Neither Merseyside BioBank nor RECORD returned any existing records of otter (*Lutra lutra*) within the 2km search area.

4.4.8.2. No watercourses suitable to support otters were identified within or immediately adjacent to the site. Therefore, it is considered highly unlikely that otters will utilise the habitats present on site or be impacted by the proposed development.

4.4.9. Reptiles

4.4.9.1. Merseyside BioBank returned occasional records of reptile species within the 2km search area, although no records specific to the surveyed site or the immediate surrounding area. The closest records refer to the presence of common lizard (*Zootoca vivipara*) at Pex Hill, 150m to the north.

4.4.9.2. RECORD did not return any existing records of reptile species within the 2km search area.

4.4.9.3. The site provides opportunities for reptiles to seek shelter but limited opportunities for foraging or basking, due to the dense habitats and levels of disturbance. The site also has connectivity to areas of suitable habitat in the surrounding area that support known populations of reptiles.

4.4.9.4. Due to the existing disturbance on site, it is considered unlikely that the proposed development will have a significant impact on reptile populations, although individual reptiles may be impacted if they are present on site. Precautionary measures implemented during the development would reduce the likely impacts.

4.4.10. Water Voles

4.4.10.1. Merseyside BioBank returned occasional records of water vole (*Arvicola amphibius*) within the 2km search area, although no records specific to the surveyed site or the immediate surrounding area. The closest records refer to the presence of the species 1km to the north.

4.4.10.2. RECORD did not return any existing records of water vole within the 2km search area.

4.4.10.3. No watercourses suitable to support water voles were identified within or immediately adjacent to the site. Therefore, it is considered highly unlikely that water voles will utilise the habitats present on site or be impacted by the proposed development.

4.5. Invasive Non-Native Plant Species

4.5.1. One invasive non-native plant species was identified within the surveyed site, that species was rhododendron. Rhododendron was identified growing in the areas of scrub to the west of the site (T2).

4.5.2. Rhododendron spreads through runners in the ground around the plant. Therefore, any works carried out in close proximity to the plant may cause it to be spread, if suitable control measures are not put in place during the work.

5. Recommendations

5.1. Designated Sites

5.1.1. The site lies immediately adjacent to Pex Hill Country Park LWS and therefore it is recommended that measures are put in place to ensure that the development does not cause impacts on the LWS.

5.2. Habitats

5.2.1. No Habitats of Principal Importance were identified within the surveyed site. Therefore, there are no recommendations relating to Habitats of Principal Importance.

5.3. Biodiversity Offsetting

5.3.1. The development current causes an overall loss of 4.08% in habitat units and no change in hedgerow units, which equates to a deficit of 0.71 habitat units and 0.01 hedgerow units to achieving a 10% gain. This doesn't meet the requirement for the development to achieve an overall gain of 10% in biodiversity.

5.3.2. It is recommended that either the site design is amended to achieve the additional units required to secure a 10% gain in biodiversity and to correct the trading summary error, or that off site options to offset the units are considered.

5.4. Fauna

5.4.1. Amphibians and reptiles

5.4.1.1. It is recommended that precautionary measures for amphibians and reptiles are implemented during any further works carried out on the site. The measures should include the following, as a minimum:

- All personnel working on the site should be briefed on the potential presence of amphibian and reptile species, how to identify the species and what to do if amphibians or reptiles are encountered,
- Any further clearance of vegetation or movement of existing materials should be carried out in a careful manner that allows the area underneath to be inspected for amphibians and reptiles,
- Materials should be stored on pallets or batons where possible and loose aggregates should be stored in bags or compacted.

5.4.1.2. In the event that individual common amphibians or reptiles are encountered they should be carefully moved to areas of suitable refugia outside the development footprint.

5.4.1.3. In the event that large numbers of common amphibians or reptiles (5+) or any great crested newts are encountered all works on site should cease immediately and further advice should be sought.

5.4.2. Badgers

5.4.2.1. It is recommended that any excavations created on the site have at least one sloping side, to allow badgers or other animals to escape. All pipe ends should be capped between shifts to prevent inquisitive animals entering the pipes and becoming trapped.

5.4.3. Bats

5.4.3.1. It is recommended that no works commence on building B2 prior to additional surveys of the building being carried out, in line with the Bat Conservation Trust (BCT) Good Practice Guidelines (2023).

5.4.3.2. For a building with a low potential to support roosting bats the guidelines require a single survey carried out during the peak survey season, which is May to August, by sufficient surveyors and Night Vision Aids (NVA) to cover the areas of potential around the building, which is considered to be two surveyors supported by NVA. Appendix VI includes a plan showing the recommended survey vantage points.

5.4.3.3. It is recommended that any tree clearance or pruning works are preceded by a further bat survey of the trees to be impacted by the works. The survey should comprise a ground inspection of the tree following by a thorough aerial inspection of any PRF identified.

5.4.3.4. It is recommended that the existing trees and scrub are retained, in line with the development plans, and that a sensitive lighting scheme, in line with BCT and Institute of Lighting Professionals (ILP) Guidance (2023) is implemented during all phases of the development.

5.4.3.5. In the event that the vegetation on site cannot be retained or a sensitive lighting scheme cannot be implemented it is recommended that further bat surveys are carried out, in line with the BCT Good Practice Guidelines (2023) to assess the likely impact of the development on foraging and commuting bats.

5.4.3.6. It is recommended that consideration is given to enhancing the site through at least one bat brick included in a suitable location in the new building.

5.4.4. Birds

5.4.4.1. It is recommended that future works on the site, including building works and vegetation clearance, avoid the nesting season, which is March to September, where possible. Any works that commence during the nesting season must be immediately preceded by a thorough nesting bird survey carried out by a suitably experienced surveyor. Any nests identified must remain undisturbed until the young have fledged from the nest.

5.4.4.2. It is recommended that consideration is given to enhancing the site for birds through nest boxes on the buildings and on the trees.

5.4.5. Hedgehogs

5.4.5.1. It is recommended that the clearance of dense vegetation avoids the peak hibernation season for hedgehogs, which is December to February, and that any clearance is carried out in a manner that allows an inspection of the area underneath for hedgehogs.

5.4.5.2. In the event that hedgehogs are encountered during the works it is recommended that they remain in a sheltered location, work in that areas ceases and further advice is sought.

5.4.5.3. It is recommended that any new fences erected during the development include hedgehog highways, holes at least 130mm in diameter, to allow hedgehogs continued access throughout the area.

5.5. Invasive Non-Native Plant Species

5.5.1. It is recommended that strict control measures are put in place to ensure that the rhododendron present on site is not spread to other areas of the site, or off site, during the development.

6. Conclusions

6.1. The proposed works will retain the habitats currently present on site but will leave the habitats within the curtilage of a residential property, and therefore unsecured and disturbed. Therefore, the development will cause an overall loss in biodiversity on the site.

6.2. If the development is preceded by further surveys, where required, and covered by precautionary working methods, where necessary, the overall impact on protected species is likely to be minimal.

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Appendix I: Habitat Map

Wayside

Habitats

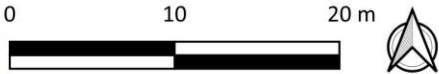
- h3h-32 Mixed scrub - scattered trees
- u1-510,32 Bare ground - scattered trees
- u1b5 Buildings
- u1b5-825 Buildings - ruined buildings
- u1b6 Other developed land

Linear Habitats

- h2b Non-native and ornamental hedgerows
- u1e Built linear features

Scattered trees (Size in symbol)

- Good condition
- Moderate condition



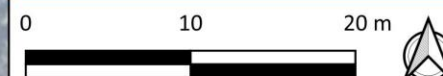
Appendix II: Target Notes

Wayside

 Site boundary

Target Notes

-  T1 - Piles of stone
-  T2 - Rhododendron
-  T3 - The more modern building, works ongoing
-  T4 - The ruined building



Appendix II: Target Notes

T1	Old piles of stone providing potential refugia for some species.	
T2	Rhododendron, an invasive non-native plant species.	
T3	The more modern building present on site.	
T4	The ruined building.	

Appendix III: Species Lists

h3h Mixed scrub	
Species Present	DAFOR Assessment
Ivy (<i>Hedera helix</i>)	A
Sycamore (<i>Acer pseudoplatanus</i>)	O
Laurel (<i>Laurus nobilis</i>)	R
Rhododendron (<i>Rhododendron sp.</i>)	R
Bramble (<i>Rubus fruticosus</i>)	F
Nettle (<i>Urtica dioica</i>)	O
Spruce (<i>Picea sp.</i>)	R
Holly (<i>Ilex aquifolium</i>)	R
Buddleia (<i>Buddleja davidii</i>)	O
Daffodil (<i>Narcissus sp.</i>)	O
Elder (<i>Sambucus nigra</i>)	O
Silver birch (<i>Betula pendula</i>)	O

-32 Scattered tree	
Species Present	DAFOR Assessment
Lime (<i>Tilia sp.</i>)	F
Sycamore (<i>Acer pseudoplatanus</i>)	F
Beech (<i>Fagus sylvatica</i>)	R
Poplar (<i>Populus sp.</i>)	R
Cedar (<i>Cedrus sp.</i>)	R
Holly (<i>Ilex aquifolium</i>)	R
Leyland cypress (<i>Cupressus x leylandii</i>)	R
Eucalyptus (<i>Eucalyptus sp.</i>)	R
Oak (<i>Quercus sp.</i>)	R
Pine (<i>Pinus sp.</i>)	R
Silver birch (<i>Betula pendula</i>)	O

h2b Non-native and ornamental hedgerow	
Species Present	DAFOR Assessment
Leyland cypress (<i>Cupressus x leylandii</i>)	F
Beech (<i>Fagus sylvatica</i>)	F

Appendix IV: Development Plans



Appendix V: Planning Policy and Species Legislation Summary

1. Planning Policy

1.1. The National Planning Policy Framework (NPPF, 2019) sets out the governments planning policies and how they should be applied. Section 15 of the policies refers to ‘Conserving and enhancement the natural environment’. This outlines how local authorities should deal with biodiversity when considering planning applications.

1.2. NPPF paragraph 180 States:

When determining planning applications, local planning authorities should apply the following principles;

- a) If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
- d) Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.*

2. Legislation Summary

Site	Legislation	
Locally Designated Sites	Locally designated sites are not covered by any statutory legislation but are protected by local development plans.	
Statutory Sites	Statutory sites are protected in different ways depending on the reason for the sites designated with sites being covered by legislation including the Wildlife and Countryside Act 1981 and the Habitats Directive.	
Species and Habitats of Principal Importance	Species and habitats of principal importance are covered by the Natural Environment & Rural Communities Act 2006.	
Species	Legislation	Offences include
Badgers	Protection of Badgers Act 1992	○ Wilfully kill, injure, take, possess or cruelly ill-treat a Badger, or attempt to do so; ○ To intentionally or recklessly interfere with a sett (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).
Bats	Conservation of Habitats and Species Regulations 2017 (as amended) Wildlife and Countryside Act 1981	○ Deliberately kill, injure or capture a bat; ○ Deliberately disturb bats; ○ Damage or destroy a breeding site or resting place of a bat. ○ Obstruct access to any structure or place which any bat uses for shelter or protection; or

		Disturb any bat while occupying a structure or place which it uses for that purpose.
Birds	Wildlife and Countryside Act 1981	- Intentionally kill, injure, or take any wild bird; - Intentionally take, damage or destroy a nest of any such bird whilst it is in use or being built; or - Intentionally take or destroy an egg of any such bird.
Crayfish	Wildlife and Countryside Act 1981	- Obstruct access to any structure or place which a crayfish uses for shelter or protection; or - Disturb a crayfish while occupying a place which it uses for that purpose.
Great Crested Newts	Conservation of Habitats and Species Regulations 2017 (as amended) Wildlife and Countryside Act 1981	- Intentionally or deliberately capture, injure, kill, or disturb the species; - Intentionally or recklessly damage, destroy or disturb a GCN in a place of shelter or protection, or obstruct access to such a place; or - Damage or destroy a breeding site or resting place.
Hazel Dormice	Conservation of Habitats and Species Regulations 2017 (as amended) Wildlife and Countryside Act 1981	- Deliberately capture, injure or kill a dormouse; - Deliberately disturb dormice; - Damage or destroy a breeding site or resting place of a dormouse - Obstruct access to any structure or place which a dormouse uses for shelter or protection; or - Disturb a dormouse while occupying a structure or place which it uses for shelter or protection
Otters	Conservation of Habitats and Species Regulations 2017 (as amended) Wildlife and Countryside Act 1981	- Deliberately capture, injure or kill any wild otter; - Deliberately disturb wild otters; - Damage or destroy a breeding site or resting place of an otters. - Disturb an otters while it is occupying a structure or place which it uses for shelter or protection; or - Obstruct access to such a place.
Red Squirrels	Wildlife and Countryside Act 1981	- Kill, injure or take a red squirrel; - Damage, destroy or obstruct access to any structure or place which a red squirrel uses for shelter or protection; or - Disturb a red squirrel while it is occupying a structure or place which is used for that purpose.
Reptiles (non EPS)	Wildlife and Countryside Act 1981	Intentionally kill or injure a reptile.
Water Voles	Wildlife and Countryside Act 1981 Natural Environment & Rural Communities (NERC) Act 2006	- Intentionally capture, kill or injure water voles; - Intentionally or recklessly damage, destroy or block access to their places of shelter or protection; or - Disturb water voles while occupying a place of shelter used for that purpose.

Local authorities therefore have a duty to consider protected species as a material consideration when assessing planning applications. The ODPM Government Circular 06/2005 states: *‘It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.’*

Appendix VI: **Bat Activity Survey Locations**

