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PRELIMINARY ECOLOGICAL APPRAISAL

Edgeworth, Main Gate, Hepworth, W. Yorks.

Report Reference: BG18.338

October 2018



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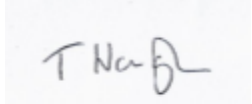


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1 Summary

- 1.1 Brindle & Green Ecological Consultants Ltd were commissioned by Mr. Stephen Lindley to undertake a Preliminary Ecological Appraisal incorporating a Phase 1 Habitat Survey and Protected Species Assessment at Edgeworth, Maingate, Hepworth, W. Yorkshire. This report summarises the potential ecological constraints to the outline application for site clearance to facilitate the development of a new residential dwelling. Detailed design plans have not yet been generated. The survey was carried out on the 24th October 2018.
- 1.2 The project area is approximately 0.1 hectares in extent and comprises a residential dwelling surrounded by an area of hardstanding, with ornamental shrubs and amenity grassland along site boundaries. The habitats were evaluated to support site value.
- 1.3 The habitats described within this report have the potential to support a number of protected and/or notable species however ultimately the land use is unchanging. As such, this report outlines important measures to protect species during site clearance, and recommendations to improve the biodiversity status of the site post development.

A full description of the recommendations can be found within Chapter 7, the table below is a summary of the ecological issues recommended for further consideration as a result of our initial investigations:

Ecological Consideration	Recommendations (e.g. further survey, mitigation)	Timing
Habitats	Introduction of native hedgerow.	During development.
Breeding birds	Sensitive working methods. See Chapter 7.	Before and during development
Foraging and commuting bats	Sensitive working methods. See Chapter 7.	During and after development.
Roosting bats	The building was found to contain a limited number of bat droppings, suggesting an historic use of the internal roof void. Three further activity surveys will be required, incorporating at least one dusk emergence and one dawn re-entry survey, in order to establish presence/absence in the void. Reasonable avoidance measures in relation to a mature sycamore tree. See Chapter 7.	May – September During development

2 Introduction

- 2.1 The purpose of this assessment was to provide a Preliminary Ecological Appraisal of the site incorporating a Phase 1 Habitat Survey and Protected Species Assessment to establish the likelihood of the site supporting protected species. The survey provides detail on the need for any additional, more detailed protected species surveys, likely mitigation and any opportunities for enhancement.
- 2.2 The project area is approximately 0.1 hectares in extent and is located to the south-eastern side of Hepworth, a rural village 10km south of Huddersfield, W. Yorkshire. Situated along Main Gate, the site is surrounded by residential areas of Hepworth. The wider environment is predominantly rural, with scattered woodland patches to the west and east of Hepworth within a wider environment characterised by agricultural fields and grazing pasture. The site is the subject of an outline application for site clearance to facilitate the development of a new residential dwelling. Detailed design plans have not yet been generated. Design proposals have not yet been submitted.
- 2.3 The legislation relevant to protected species within the United Kingdom is summarised within Appendix 4.
- 2.4 Results and recommendations contained within this report have been prepared by an experienced ecologist and are therefore the view of Brindle & Green Limited. The survey is based on information provided by our client, the development proposals, results of the desk study, and our survey of the site. This report pertains to this information only.

3 Methodology

3.1 Desk Study

Table 1 below lists organisations and/or resources used as part of the desk study process. Data regarding any known statutory or non-statutory sites, in addition to any records for protected species, were requested from the following sources:

Table 1. Ecological Data Resources

Consultant	Requested Data	Search Radius	Date Requested
Local Ecological Records Centre <i>West Yorkshire Ecology Service</i>	Protected and notable species records Local, National and International Site Designations	2km	24/10/2018
MAGIC Maps	National and International Site Designations Granted EPS Development Licences	2km	30/10/2018

3.2 Surveyors

Survey carried out by Thomas Hough MSc, Assistant Ecologist.

The survey was supervised by Chris Needham MSc. MCIEEM who holds a Natural England Bat Licence (2015-10292-CLS-CLS) and Great Crested Newt Licence (2015-17910-CLS-CLS).

3.3 Survey Conditions

The survey was undertaken at 11:00am on the 24th October 2018.

The outside temperature was recorded as 11°C, with dry, sunny conditions, and 3/8 cloud cover.

3.4 Extended Phase 1 Habitat Survey

3.4.1 A Phase 1 habitat survey was undertaken following survey guidance (JNCC 2007) to establish the presence and distribution of habitat types within the site and potential ecological constraints to development. A Phase 1 Habitat Map was produced (Appendix 1) and where additional details were required Target Notes have been provided (Appendix 2). A plant species list (Appendix 2) summarising all plants identified on site was produced during the survey and all scientific nomenclature was produced according to Stace (2010).

3.4.2 This survey was extended to note the potential for habitats on site to support protected and/or notable species and for evidence of any such species. The habitats on site were assessed for their suitability to support protected species in relation to the habitat type found at the site. Any incidental sightings or field signs were noted at the time of survey. Where evidence of, or the confirmed presence of a protected species was identified, further species specific surveys may be recommended to ensure that the presence or otherwise of a legally protected species is fully considered prior to the determination of any planning approval or to guide an EPS development licence.

3.4.3 Hedgerows on site were assessed following the Hedgerow Survey Handbook (DEFRA 2007), and defined as species-rich if the structural species making up a surveyed 30m section of hedgerow included at least four native woody species. Results were compiled and assessed against qualifying criteria within the Hedgerow Regulations (1997) and also the UK Biodiversity Action Plan.

3.4.4 Legislation, guidance and methodology for species relevant to this site are presented in full within Appendices 4 and 5 of this report.

3.4.5 Site Evaluation

Following the ecological appraisal the site was classified into one of six groups (Table 2), to indicate whether the site is considered to hold ecological value on a local, national or international scale. *This evaluation is intended as a guide and only targeted survey work can establish the significance of protected species populations onsite.*

Table 2. Definitions of each of the six evaluation brackets, indicating the importance of each habitat type and an example of their possible habitat status. (Table constructed following The CIEEM EcIA Guidelines, Terrestrial, Freshwater and Coastal (2016) pages 16-17).

Evaluation Value	Comparable example
International	An internationally designated site or candidate site, including habitat or species included within Special Protection Areas (SPA) / Special Areas of Conservation (SAC), Ramsar Sites, listed under Annex 1 of the Habitats Directive.
National	Sites designated at UK level, e.g. Sites of Special Scientific Interest (SSSI), supporting species considered nationally threatened or rare. A regularly occurring regionally or county significant population/number of any nationally important species A feature identified as of critical importance within Section 41 of the NERC Act (2006).
Regional	Key Habitat type included within the National Biodiversity Action Plan (BAP) /NERC Habitat of Principle Importance (HPI). A regularly occurring, locally significant number of a regionally important species.
County	Designated sites, such as Sites of Biological Importance (SBIs) or viable habitat / species populations of value at a county level (LBAP).
District	District level designated sites, such as Local Wildlife Sites (LWS) or habitats / species populations of value at a district (Which have features qualifying for LWS status). Sites/features that are scarce within the district or which appreciably enrich the district habitat resource.
Local / Site	Habitats or species populations of value in a local (i.e. within ~ 5km of the site) context. Habitats of poor to moderate biological diversity e.g. established conifer plantations, species poor hedgerows and un-intensively managed grassland which supports species which are common to the local area and whose loss can be easily mitigated.

3.5 Limitations

3.5.1 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. The protected and notable species assessment provides a preliminary view of the likelihood of these species occurring on site, based upon the suitability of the habitats, known distribution of the species in the local area and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group.

3.6 Report Lifespan

Given the transient nature of the subject we would consider the survey results contained to be accurate for 2 years.

4 Site Context

4.1 Site Description

The application site can be found at: Grid Ref. SE 16409 06636 and is located to the south-eastern side of Hepworth, a rural village 10km south of Huddersfield, W. Yorkshire. Situated along Main Gate, the site is surrounded by residential areas of Hepworth, with scattered mature trees and ornamental shrubs within the village providing connectivity to the site from the wider environment. The wider environment is predominantly rural, with scattered woodland patches to the west and east of Hepworth creating further habitat corridors within a wider environment characterised by agricultural fields and grazing pasture. Further connectivity is provided by scattered trees and hedgerows along field margins.

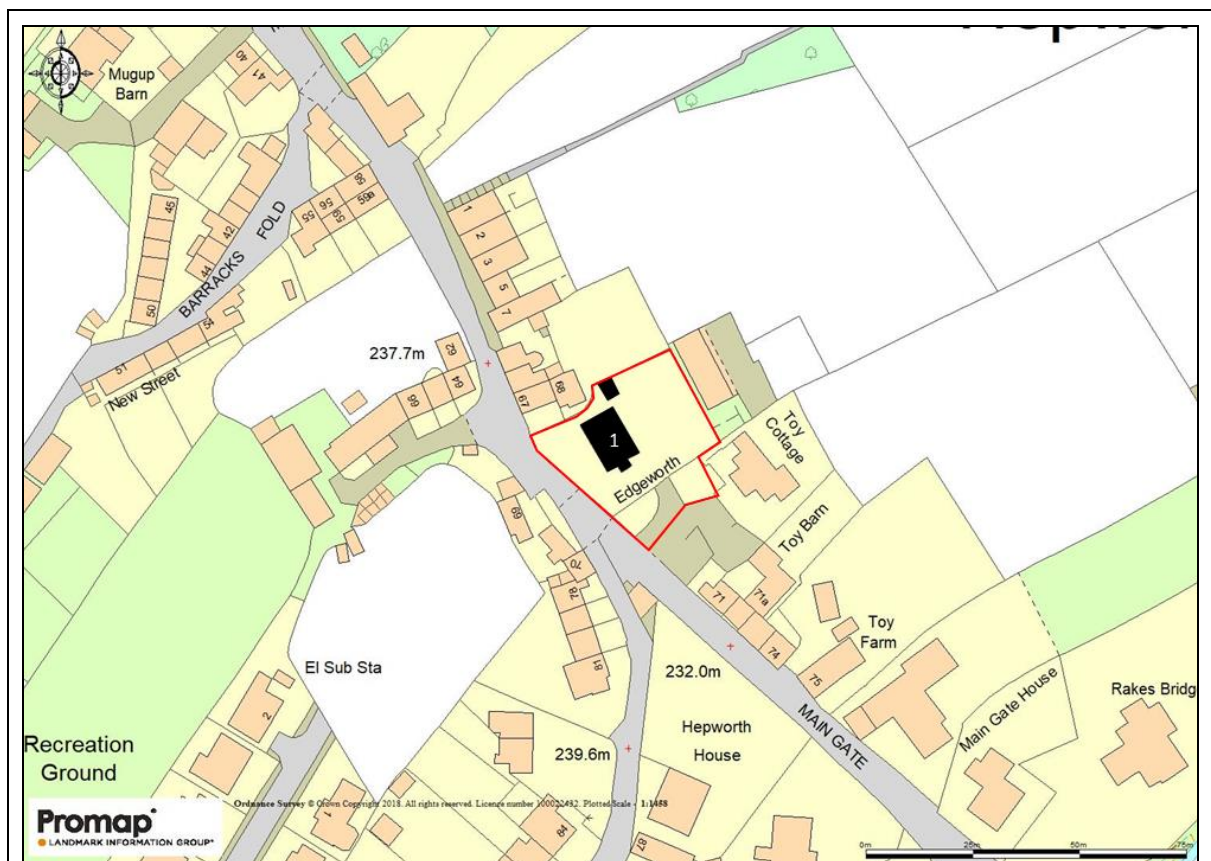


Figure 1. OS map of the project site and surrounding area.

Red line boundary depicts application site.

4.2 **Zone of Influence**

The zone of influence describes the geographic extent of potential impacts of a proposed development. The small scale of the proposed development reduces the likelihood of impact to the surrounding area, however suitable connective vegetation could influence the presence of protected species within the application boundary. The zone of influence was considered to be 500 metres from the application boundary for amphibians and reptiles, 30 metres for terrestrial mammals such as badgers, and within the area of impact for breeding birds. The site was positioned within a suburban area with extensive connectivity to the wider environment, therefore has the potential to support commuting mammals and birds within the wider environment

5 Results

5.1 Desk Study

5.1.1 Designated Sites

The site was subjected to a search for designated sites within a 2km radius of the site using data supplied by the Local Records Centre (West Yorkshire Ecology Service (WYES)) and the online desk-based resource MAGIC.

5.1.2 The data from WYES was received on the 20/11/2018 and revealed 6 relevant non-statutory sites within a 2km radius. These are summarized in Table 3.

5.1.3 A search of the online resource Magic Maps found no sites with statutory designations within the 2km radius search.

Table 3. Summary of Designated Sites within a 2km radius of the application site

Site Name	Grid Ref	Status	Reason for Designation	Distance from site
Holme House Wood	SE176083	LWS	Ancient and semi-natural woodland	2km NE
Morton Wood	SE157063	LWS	Rich acid woodland	0.5km W
Rakes Wood	SE168062	LWS	Rich acid woodland	0.5km SE
Wild Boar Clough	SE154054	LWS	Acid grassland	1.6km SW
Boshaw Whams Reservoir	SE 151056	Site of Wildlife Significance	Aquatic habitat	1.6km SW
Mill Shaw Grove	SE174063	Site of Wildlife Significance	Acid grassland	1.2km E

5.1.4 Protected Species Assessment

Data supplied by WYES also included records of protected species. Full datasets are presented within Appendix 8 of this report. A summary of the closest or most relevant records can be seen in Table 4 below.

Table 4. Summary of relevant protected and priority species records

Species	Grid ref.	Date	Description
Common pipistrelle (<i>Pipistrellus pipistrellus</i>); Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>); <i>Pipistrellus</i> sp.	SE1636206623; SE1635007244	2008 - 2016	23 records within the local area, 4 pertaining to roosts. Nearest record located 0.05km SW. Nearest roost located 0.6km N.

Noctule (<i>Nyctalus noctula</i>)	SE1636206623	2011 - 2014	Five records, nearest located 0.05km SW.
Daubenton's (<i>Myotis daubentoni</i>); Natterer's (<i>Myotis nattereri</i>)	SE1635007244; SE1634506631	2012 - 2014	One Daubenton's bat record located 0.6km N. One record of a natterer's bat roost located 0.06km W.
Brown long-eared (<i>Plecotus auritus</i>)	SE16850540	2011	One record located 1.3km S.
Bird species	SE151057	2010 - 2015	Majority of bird species in the area records at the Boshaw Whams Reservoir, 1.6km to the SW. Species such as starling (<i>Sturnus vulgaris</i>) and swallow (<i>Hirundo rustica</i>) recorded.
Badger (<i>Meles meles</i>)	See Appendix 10.	See Appendix 10.	See Appendix 10.

5.2 Habitats

5.2.1 The habitat types recorded on site are summarised below, and the frequency and distribution of habitat types is displayed within a Phase 1 Habitat Survey Map (Appendix 1 and 2).

5.2.2 Table 5 provides a list of habitat types present on site along with their inclusion (or otherwise) as a National and / or Local Habitat of Principle Importance (HPI) (Previously referred to as Biodiversity Action Plan (BAP)) (*It should be noted that additional information is included within the text where a classification under Phase 1 survey methodology does not mirror habitat types considered to be conservation priorities*).

Table 5. JNCC Habitat Types found on site and inclusion within UK BAP habitats.

Habitat Type	N HPI	L HPI	N/A
Amenity grassland			✓
Ornamental shrubs			✓
Scattered trees			✓
Hardstanding			✓
Residential building			✓

5.2.3 Amenity Grassland

The front garden (situated on the south-western side of the site) of the residential dwelling comprised amenity grassland (Figure 2). The grassland was managed and well-maintained, with a sward height of approximately 5cm. This grassland was composed of perennial rye-grass (*Lolium perenne*) and smooth-meadow grass (*Poa pratensis*), with occasional willow-herb (*Epilobium* sp.), ragwort (*Senecio jacobaea*) and creeping buttercup (*Ranunculus repens*). This grassland contained a ratio of bryophyte species of 50:50 relative to grassland species. Amenity grassland of a similar composition was also present in a small section along the eastern boundary.



Figure 2. Amenity grassland comprising the front garden of the residential dwelling, to the south-western side of the site.

5.2.4 Ornamental Shrubs and Scattered Trees

5.2.4.1 Areas of ornamental shrubs bordered the amenity grassland in the south-western side of the site (Figure 3), with *fuchsia* sp., cranesbill sp. (*Geranium* sp.), montbretia (*Crocasmia* sp.), cotoneaster (*Cotoneaster* sp.), fox-and-cubs (*Pilosella aurantiaca*), yellow corydalis (*Corydalis lutea*), *pulmonaria* sp., laurel (*Laurus nobilis*) and other introduced ornamental shrubs. Due to a lack of management bracken (*Pteridium aquilinum*) and bramble (*Pteridium aquilinum*) could be found encroaching in these areas and a section to the eastern side of the amenity grassland comprised a mix of ornamental shrubs with grassland species.

5.2.4.2 Individual holly (*Ilex aquifolium*), conifer (*Pinophyta* sp.) and ash (*Fraxinus excelsior*) trees were situated along the north-western boundary, along with some herb species such as lesser celandine (*Ficaria verna*) and Canadian fleabane (*Erigeron canadensis*). Conifers such as Leyland cypress (*Cupressus × leylandii*) were present along the remainder of the north-western boundary. An area of introduced ornamental shrubs to the eastern side of the site comprised cotoneaster, laurel and other introduced species

(Figure 4). To the southern corner of the site, scattered ornamental shrubs such as montbretia, field rose (*Rosa arvensis*) and ornamental rose (*Rosa* sp.) could be found within an area of bare ground, with willow-herb, bracken and vetch sp. (*Vicia* sp.).

5.2.4.3 One large mature ivy-covered sycamore (*Acer pseudoplatanus*) was present near the eastern boundary (Figure 5) (Target Note 3; Appendix 2).

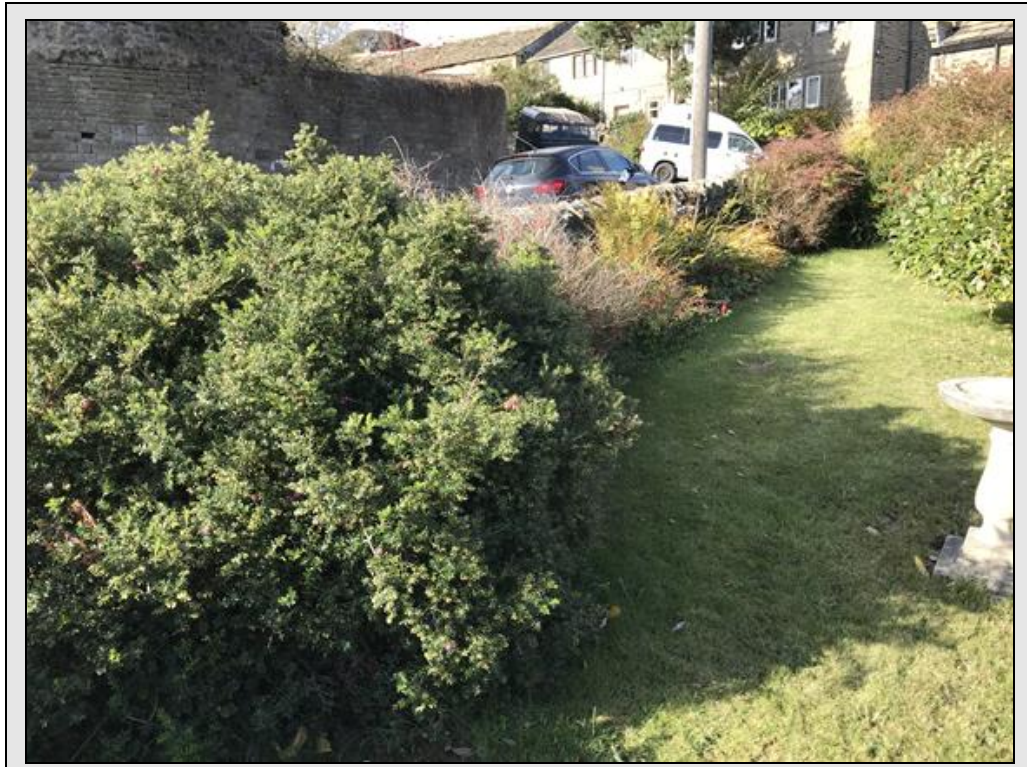


Figure 3. Ornamental shrubs along the south-eastern boundary.



Figure 4. Ornamental shrubs to the north-western side of the site.



Figure 5. Mature sycamore tree located near the eastern boundary.

5.2.5 Hardstanding with Residential Building

Concrete hardstanding comprised the majority and the interior of the site, surrounding the residential dwelling at the centre of the site, and comprising access to the site from the south-western boundary (Figure 6). A section of hardstanding was also present along the north-eastern boundary.



Figure 6. Concrete hardstanding within the centre of the site.

5.2.6 Invasive Weeds Assessment

An assessment of the site was made to establish the presence of invasive weeds included on schedule 9 of the Wildlife and Countryside Act 1981 (as amended). No recordings of invasive weed species were found within, or adjacent to the application area.

5.3 Fauna

5.3.1 Breeding Birds

The residential dwelling on site supported no suitable access points for birds to enter the roof void and there was no evidence that breeding birds had previously occupied the building during the internal inspection. However, ornamental shrubs along site boundaries provide suitable nesting habitat for bird species. It is not currently understood the level at which this habitat will be cleared as part of the development, however they are situated in close proximity to the building proposed for demolition. In addition, two bird boxes (Target Notes 1, 2; Appendix 2) were also located onsite. No current evidence of breeding birds was recorded at the time of the survey; however, the assessment was undertaken outside of the active nesting period (March - September). The data from the local records centre revealed records of bird species such as swallow (*Hirundo rustica*) and starling (*Sturnus vulgaris*) within the local area.

5.3.2 Roosting Bats

5.3.2.1 The data from the local records centre revealed to location of five bat roosts within the local area. The residential dwelling was assessed to have a high suitability to support roosting bats. Bat droppings were found within the internal roof void; however, they were low in number and located amongst abundant mouse droppings, suggesting that there may a previous use of the internal roof void as a roost. Suitable access was present to the roof interior, and the building supported external features such as lifted roof tiling. A small garage along the north-western boundary was assessed has having a negligible suitability as it was constructed of sub-optimal materials. The main structural features of the building, and the suitability for supporting roosting bats are summarised below (Table 6), and associated figures can be found with Appendix 10.

5.3.2.2 All visible trees on site were assessed and categorised based upon Bat Conservation Trust guidance (see Appendix 5), with the majority of scattered trees within the site boundary assessed to have negligible potential to support roosting bats. However, one ivy-covered mature sycamore to the eastern corner of the site (Target Note 3; Appendix 2) was assessed as having a low suitability for roosting bats.

Table 6. Summary of Bat Roost potential and evidence found within each of the buildings/structures on site (Supporting Figures within Appendix 10).

High Moderate Low Negligible None				
Building Number	Description	Bat evidence / Potential Roosting Features (PRFs)		Roost Suitability
B1	Residential dwelling of a single-storey on the south-western side and two stories on the north-eastern side due to the topography of the site. The building is constructed of stone brick on the south-eastern elevation, with the remaining elevations rendered with pebble-dash, and a pitched slate roof. A small single-storey extension was present on the south-eastern elevation with a section of slate tiling. The building held timber soffits and fascia boarding. The building was unused and unfurnished, and in the process of being prepared for demolition. However, the interior was well-sealed and maintained. A single roof void was accessible via a ladder. The roof void was unused having recently been cleared of storage. The interior roof comprised of a timber A-frame of approximately 2 metres in height, with bitumen felt lining.	Access points - Gap allowing access to the interior of the roof void located around a metal chimney. Potential roosting features - Space under bitumen felt lining. - Lifted slate roofing tiles on both roof elevations - Gaps along the roof ridge - Gaps in mortaring on the verge of either gable-end - Small gap behind guttering and fascia boarding Bat evidence - Low number of bat droppings within the interior void, amongst a high level of mouse droppings, suggest an historic use of the roof void.		High

5.3.3 Foraging and Commuting Bats

The residential dwelling was positioned within a built-up area with suitable vegetative foraging areas in the wider environment. Limited foraging habitat in the form of ornamental shrubs and scattered trees are present along site boundaries, however, due to the quantity of hardstanding on site the area within the red-line boundary is considered to provide negligible suitability for commuting bats, however it is expected that bats may be present in the local area. It is possible that commuting bats may pass across the site to move between more optimal habitats in the wider environment. The data from the local records centre revealed 30 records of at least five species of bat in the area.

5.3.4 **Badgers** (*Meles meles*)

5.3.4.1 Records relating to certain protected species including badger sett locations are sensitive in nature, and due to the risk of public interference are kept confidential. Details of results relating to badger have not been included in this report due to their sensitive nature but will be submitted within a confidential appendix to support the planning submission (Appendix 10).

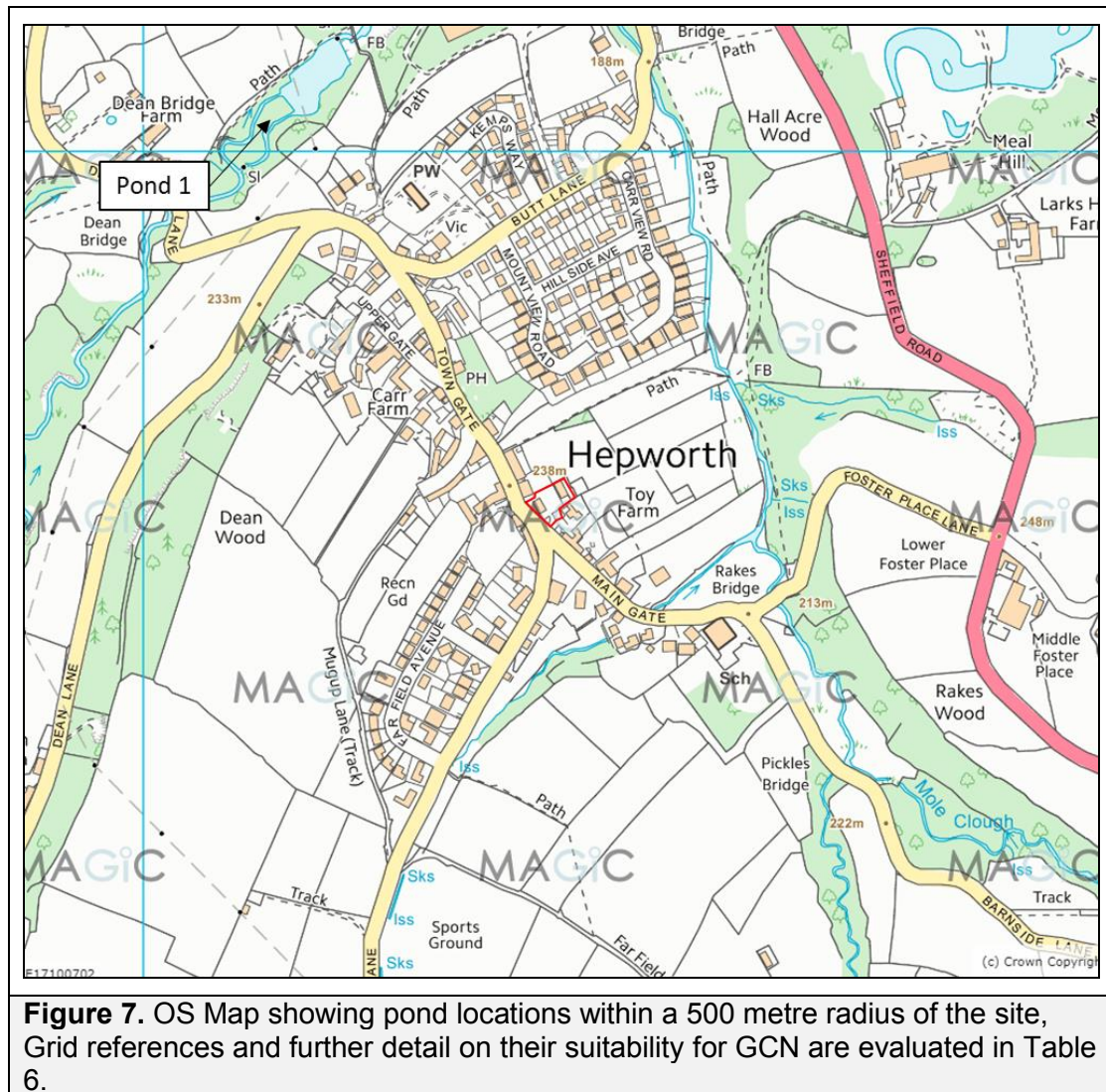
5.3.4.2 No evidence of badger setts, or activity such as mammal runs, snuffle holes and latrines were found during the ecological appraisal of the site. The site was largely unsuitable for badgers, with limited foraging habitat present in areas of ornamental shrubs. The scale of the site and its location in a residential area makes it unlikely that badgers will enter the site for foraging purposes. Therefore, badgers are not considered a constraint to this development. However, if badgers are found on site at any point during development, all works should stop until advice from a suitably qualified ecologist is sought.

5.3.5 **Great Crested Newts** (*Triturus cristatus*)

There were no ponds within and adjoining the application boundary, and only one pond located within 500 metres of the site (Figure 7). No access was possible to this pond; however, it was located 450 metres north-west of the site beyond roads and built-up areas of Hepworth. A limited amount of suitable foraging could be found on site within areas of amenity grassland and ornamental shrubs. The site was considered to be sub-optimal for supporting the terrestrial phase of this protected species. No records of newt species were revealed by the data search.

Table 6. Pond Locations

Pond No.	Grid Ref.	Habitat Suitability Index Score (See Appendix 9)	Distance from Site
1	SE 16185 07083	No access available.	450m NW



5.3.6 Reptiles

No evidence of reptiles was recorded during the survey. The site supported limited areas of suitable habitat for reptiles such as grass snake (*Natrix natrix*). Areas of amenity grassland and site could be used as basking areas, and some suitable refugia can be found within areas of ornamental shrubs and under deadwood, however the small scale of the site makes a presence of reptile species unlikely. The data search did not reveal any records of reptile species in the area.

6 Evaluation

6.1 Development Proposals

The site is the outline application for site clearance to facilitate the development of a new residential dwelling. Detailed design plans have not yet been generated. Detailed design proposals have not yet been generated.

6.2 Desk Study Impacts

Direct impacts on nearby designated sites as a result of the proposed development are considered unlikely. No sites with statutory designations are located within a 2km radius, and although the nearest site with a non-statutory designation is located 0.5km from the site, it is understood that the development will be retained within the current red-line boundary, therefore there are no perceived pathways of impact to the surrounding environment. The application site contains no habitats of biological importance

6.3 Habitats

The habitats on site have been evaluated as having site value in relation to the immediate surroundings. The site was dominated by habitats of low quality such as amenity grassland and hardstanding. The sward did not support any herb species which would indicate that this area may be of local interest and as such it is not expected that habitats of any significance will be lost. However, it is not expected that the proposed residential development will cover the entirety of the area within the red line-boundary, therefore Chapter 7 sets out enhancement prescriptions to increase biodiversity in the local area.

6.4 Breeding Birds

- 6.4.1 All wild birds, their eggs and nests are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure, or take any wild bird whilst nesting, or take, damage or destroy the nest of any such bird while in use or being built. In addition, species listed on Schedule 1 of the Wildlife and Countryside Act 1981 or their dependant young are afforded additional protection from disturbance whilst they are at their nests.

6.4.2 The residential building on site did not contain any suitable access points for breeding birds, and there was no evidence of use of the interior roof void. However, ornamental shrubs and scattered trees along the site boundaries provide suitable nesting habitat, for breeding birds. According to current plans it is not understood if these are being cleared as part of the development, nevertheless they are located in close proximity to the residential dwelling proposed for demolition. Chapter 7 provides recommendations relating to the mitigation of impacts on this species group during development.

6.5 Roosting Bats

6.5.1 All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2017 (as amended). It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally or recklessly disturb a bat or intentionally kill, injure or take any bat.

6.5.2 The building was identified as having a high suitability to support roosting bats. Bat droppings were found within the internal roof void, however they were limited in number and located amongst abundant mouse droppings. These bat droppings were not fresh, therefore suggesting an historic presence of a roost within the building that was not in use at the time of the initial survey. Access to the internal void was possible via a gap around a metal chimney along the ridge, and the building features external roosting features such as lifted roof tiles. To confidently determine if bat species are present, further activity surveys will be required. It is understood that the current building will be demolished to facilitate the construction of a new dwelling. If the development was to continue as planned, it may lead to the destruction of a roosting site of a protected species, and increased disturbance, injury or harm to individual bats and/or their young. The recommendations section (Chapter 7) of this report sets out requirements for further surveys to establish the presence of bat roosts within the building and measures to support its conservation status.

6.5.3 One ivy-covered mature sycamore tree was located near the eastern boundary (Target Note 3; Appendix 2) and was assessed as having a low suitability for roosting bats. As current development plans are not available, it

is not clear if this tree is due for removal, however in the consequence of this as part of the redevelopment scheme, it could result in disturbance or injury to roosting bats, and the loss of suitable roosting habitat. The recommendations section of this report sets out important guidance on measures to avoid impacts on this species in relation to this tree.

6.6 Foraging and Commuting Bats

Scattered trees and ornamental shrubs along site boundaries provide some limited foraging habitat and connectivity to the wider environment. However, the area within the red-line boundary was considered to have a negligible foraging and commuting suitability due to the extent of hardstanding present. It is not clear to what extent these vegetated areas are to be cleared as part of the development, however the removal of these habitats would not be detrimental to foraging and commuting bats due to the presence of similar habitats within the surrounding area. However, it is possible that bats may commute across the site between more optimal areas of habitat within the wider environment, therefore the mitigation of impacts on commuting bats in the surrounding area would be desirable. The addition of artificial lighting post development on the new residential dwelling, for example, could have a detrimental impact on the use of the area by commuting bats. Chapter 7 of this document sets out important recommendations to safeguard habitats used by bats upon completion of the works.

6.7 Great Crested Newts

Great crested newts and their eggs, breeding sites and resting places are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2017 (as amended). One pond was located within 500 metres of the site. This pond is located within a rural area north of the site beyond some built up areas of residential development and roads, and the distance from the site makes dispersal from the pond to the site unlikely. In addition, only a limited quantity of suitable foraging habitat was located on site, therefore it is considered unlikely that great crested newts will be located on site. This species is not considered a constraint to development, however if great crested newts are found on site during the site clearance, all works should cease until advice from suitably qualified ecologist sought.

6.9 Reptiles

Reptiles are protected under the Wildlife and Countryside Act 1981 (as amended) making it illegal to intentionally kill or injure reptiles. No evidence of reptiles was recorded during the survey. The site supported only a limited quantity of suitable habitat. It is possible that the amenity grassland may be used as basking habitat, and some suitable refugia may be found under ornamental shrubs and deadwood. However due to the small scale of the site and abundance of more abundant habitat within the surrounding environment it is considered unlikely that this species group will be found on site. Therefore, this species is not considered a constraint to development, however if reptiles are found on site during the site clearance, all works should cease until advice from suitably qualified ecologist sought.

7 Recommendations

The site should be the subject of further ecological survey works and/or consideration, where the following indices should be assessed and evaluated further to establish the extent of impact to the ecological value of the application site. This information can then be used to guide the Master Plan to ensure that mitigation is employed to retain and enhance local biodiversity.

7.1 Habitats

Habitats / Botanical	Timing
Recommendations	
It would be considered beneficial for local biodiversity for the incorporation of native hedgerow species along site boundaries, such as hawthorn or blackthorn	During development.

7.2 Breeding Birds

Breeding Birds	Timing
Recommendations	
Vegetation and artificial habitat (Bird boxes) on site has been identified as being suitable for use by breeding birds. Given their protection, development must be sympathetic to the value of this habitat and potential impacts on breeding birds, their eggs, nests and young. The breeding bird season is generally accepted as being between March and September. Developers should consider and implement the options most appropriate to their scheme; a) Development works should be undertaken outside of the breeding bird season, between the months of October and February where possible. b) If works are to be undertaken during the breeding bird season, suitable vegetation can be netted to prevent birds nesting, and reduce the chance of impacts for this species. This process should be undertaken by a suitably qualified ecologist and the netting should be checked and monitored by an ecologist during its use. c) If development works are carried out between	Work should be conducted outside of the breeding bird season between March and September inclusive.

the months of March and September, suitable vegetation should be subjected to a search for active birds' nests 24 hours prior to commencement of works.	
Enhancement Proscriptions	
If bird boxes are to be removed, it would be considered beneficial for bird populations in the area for bird boxes, to be re-installed on the new building post-development, preferably on the north-eastern elevation.	Post development

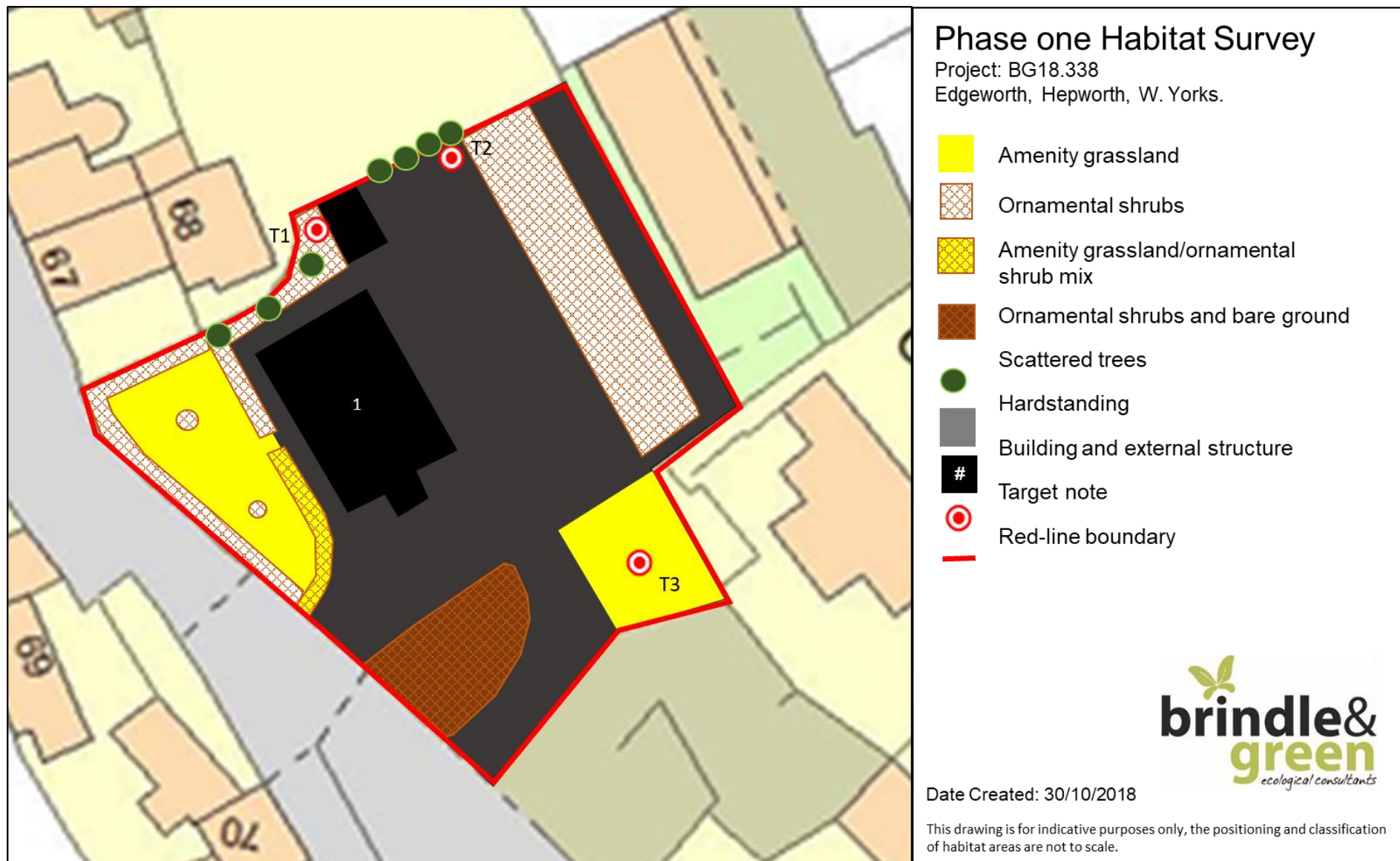
7.3 Roosting Bats

Roosting Bats	Timing
Recommendations	
Residential Building The residential building on site was assessed as having a high suitability for roosting bats, and as such should be subject to three further activity surveys. These should include at least one dusk emergence and dawn re-entry survey. Sycamore Tree The mature sycamore tree was present near the eastern boundary. It is not clear if this tree is due for removal, however in the consequence of this the following procedures should be carried out: As a precaution, and where possible, we recommend any works are conducted in September/October, to avoid maternity and hibernation seasons when bats are most vulnerable to disturbance. Hanging ivy should be stripped back under supervision from a suitable ecologist to ascertain any roosting suitability. If tree suitability is considered to be higher than a low, further presence /absence surveys or inspections will be required prior to felling. The tree can be soft felled, where tree limbs are cut and left grounded for a period of 48 hours to allow any bats to make their way out. If any roosting bats are found during the development, then works must cease immediately and Natural England or a licensed bat ecologist should be contacted for further advice.	May - September During development
Enhancement Prescriptions	
Design proposals may require amendment following the results of further survey work.	

7.4 Foraging & Commuting Bats

Foraging & Commuting Bats	Timing
Recommendations	
Ornamental shrubs and hedgerows are located along site boundaries. The extent of disturbance should be reduced where possible by employing a sensitive lighting scheme during construction works, and artificial security lighting should not be installed post construction. If lighting is required, a scheme should be devised and positioned to have minimal disturbance following the guidance of an ecologist.	During and Post Construction

Appendix 1. Phase 1 Habitat Plan



Appendix 2. Phase 1 Target Notes

Target Note Number	Description
T1	Dead ash tree with bird box
T2	Free standing timber bird box
T3	Ivy covered mature sycamore tree with a low suitability for roosting bats.

Plant Species List with DAFOR Scale

Scientific nomenclature follows Stace (2010) for vascular plant species and common names follow BSBI List of British & Irish Vascular Plants and Stoneworts.

Please note that this plant species list was generated as part of a Phase 1 Habitat survey, and does not constitute a full botanical survey.

Abundance was estimated using the DAFOR scale as follows: D = dominant, A = abundant, F = frequent, O = occasional, R = rare, LF = locally frequent

Common Name	Scientific Name	Estimated Abundance (DAFOR)
Ash	<i>Fraxinus excelsior</i>	R
Bramble	<i>Rubus fruticosus</i>	O
Bracken	<i>Pteridium aquilinum</i>	O
Canadian fleabane	<i>Erigeron canadensis</i>	R
Conifer sp.	<i>Pinophyta</i> sp.	F
Cotoneaster	<i>Cotoneaster</i> sp.	F
Cranesbill sp.	<i>Geranium</i> sp.	O
Creeping buttercup	<i>Ranunculus repens</i>	O
Creeping thistle	<i>Cirsium arvense</i>	O
Field rose	<i>Rosa arvensis</i>	O
Fox-and-cubs	<i>Pilosella aurantiaca</i>	F
Fuchsia	<i>Fuchsia</i> sp.	O
Holly	<i>Ilex aquifolium</i>	R
Laurel sp.	<i>Laurus nobilis</i>	F
Lesser celandine	<i>Ficaria verna</i>	O
Leyland cypress	<i>Cupressus × leylandii</i>	O
Montbretia	<i>Crocsmia</i> sp.	O
Perennial rye-grass	<i>Lolium perenne</i>	A
Ragwort	<i>Senecio jacobaea</i>	F
Rose	<i>Rosa</i> sp.	O
Smooth meadow-grass	<i>Poa pratensis</i>	A
Sycamore	<i>Acer pseudoplatanus</i>	R
Vetch sp.	<i>Vicia</i> sp.	O
Willow-herb	<i>Epilobium</i> sp.	O
Yellow corydalis	<i>Corydalis lutea</i>	O

Appendix 3. General References

Bat Conservation Trust's 'Good Practice Survey Guidelines' (Rev 2012).

Bell, S. McGillivray, D. (2006) *Environmental Law*. 6th ed. Oxford University Press.

Byron, H (2000) *Biodiversity and Environmental Impact Assessment: A Good Practice Guide for Road Schemes*. The RSPB, WWF-UK, English Nature and the Wildlife Trusts, Sandy.

Collins, J (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, (3rd edition), Bat Conservation Trust, London.

Defra (2007) *Hedgerow Survey Handbook*; A standard procedure for local surveys in the UK. Defra, London.

Gilbert G, Gibbons DW, Evans J. (1998) *Bird Monitoring Methods: Breeding Bird Survey* (pages 389-393). RSPB.

Harris S, Cresswell P and Jefferies D (1989). *Surveying Badgers*.

Joint Nature Conservation Committee (JNCC) *Handbook for Phase 1 habitat survey* (2003). JNCC.

Langton T, Beckett C and Foster J (2001) *Great Crested Newt Conservation Handbook*. Froglife, Halesworth.

Mitchell-Jones A.J. McLeish, A.P. (2004) *Bat Workers Manual* (3rd Edition). Joint Nature Conservation Committee.

Mitchell-Jones A.J. *Bat Mitigation Guidelines* 2004. English Nature.

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal* 10 (4), 143-155.

Rodwell, J.S. Joint Nature Conservation Committee (JNCC). *National Vegetation Classification: Users' handbook* (2006). JNCC.

Rose, F. (2006). *The Wild Flower Key* (Revised edition). Penguin books Ltd, London

Stace, C. (2010). *Field Flora of the British Isles*. Cambridge University Press

Sutherland, W.J. (1996) *Ecological Census Techniques*. Cambridge University Press.

Treweek, J. (1999) *Ecological Impact Assessment*. Blackwell Science.

Williams, C. (2010) *Biodiversity for Low and Zero Carbon Buildings, A Technical Guide for New Build*. Riba Publishing.

Appendix 4. Legislation, Policy and Guidance

Articles of British wildlife and countryside legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to. The articles of legislation are:

- The Wildlife and Countryside Act 1981 (as amended)
- The Conservation of Habitats and Species Regulations 2017 (as amended)
- Department for Communities and Local Government. National Planning Policy Framework. March 2012
- EC Council Directive on the Conservation of Wild Birds 79/409/EEC
- National Parks and Access to the Countryside Act 1949
- The Protection of Badgers Act 1992
- Land Drainage Act 1991
- The Countryside and Rights of Way Act 2000
- The Natural Environment and Rural Communities Act 2006
- The United Kingdom Biodiversity Action Plan 2006
- Hedgerow Regulations 1997
- Town and Country Planning Act 1990
- Local Biodiversity Action Plan (LBAP / HPI)

Appendix 5. Legislation, Guidance and Methodology for Preliminary Ecological Appraisals.

Legislation, Guidance and Methodology

Breeding Birds

All nesting birds are protected under the Wildlife and Countryside Act 1981, which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition, for species listed on Schedule 1 of the Wildlife and Countryside Act 1981 it is an offence to intentionally or recklessly cause disturbance at, on or near an 'active' nest.

The bird breeding season is typically accepted to start in February/March and continue through until September/October, however breeding birds can be found all year round depending on the given species and climatic conditions.

A site's habitat composition, locality, association to designated sites as well as current usage and management are all considered in the decision as to whether further bird-related surveys are required. In addition, surveys may be recommended based on incidental bird records collected during a Preliminary Ecological Appraisal, species identified within an ecological data search or target species listed within a local biodiversity action plan.

Bird surveys are carried out in accordance with:

Gilbert G, Gibbons DW, Evans J. (1998) *Bird Monitoring Methods*. RSPB.

Bats

Roosting Bats

All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2017 (as amended). It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally or recklessly disturb a bat or intentionally kill, injure or take any bat.

Areas of concern; can be encountered in many types of structure and care should therefore be taken when undertaking maintenance or demolition of suitable structures and trees.

Site assessments of buildings, commuting and foraging habitat and trees are undertaken in accordance with: Collins, J (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, (3rd edition), Bat Conservation Trust, London. (Table 1 & 2 Below).

Preliminary Ecological Surveys look for evidence of bat presence such as feeding remains, bat droppings, roosting individuals and staining around potential access points. The suitability of site features are also assessed because absence of bat evidence, is not confirmation of a negative result.

Within trees, features searched for include; natural holes, woodpecker holes, cracks/splits in major limbs, loose bark, hollows, and dense cover of ivy over the tree. If evidence is found, or a building supports features conducive to supporting roosting bats then further presence / absence bat surveys and/or roost characterisation surveys will be recommended.

Foraging and Commuting bats

Habitat features on site are assessed for their suitability to support foraging and commuting bat populations. This assessment is independent from the suitability of the site to support roosting bats, and provides information on the likelihood of bat foraging activity within the local environment, and the dependence of individuals on these features for commuting to alternative roosting sites, foraging and migration.

Table 1: Guideline for assessing the suitability of a structure to support roosting habitat (Buildings and Trees), amended from Collins, J (2016)

Category	Description of roosting habitat	Number of additional presence / absence surveys required
Negligible Suitability	Suitable cavities may exist, but these are less than ideal.	None
Low Suitability	A structure with one or more potential roost sites that could be used by individual bats opportunistically. The feature and surrounding habitat do not provide enough shelter, conditions* space for larger roost types such as a maternity or hibernation roost. A tree of sufficient size and age to support roosting bats, but with no features observed from the ground, or the features only have a limited potential to support roosting bats.	One survey between May and August Trees – No further surveys required
Moderate Suitability	A structure or tree considered to have one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions* and surrounding habitat but are unlikely to support a roost of high conservation status (With regard to roost type only – assessments are made irrespective of species conservation status, which is established after presence is confirmed).	Two surveys between May and September (with at least one survey undertaken between May and August) One Dusk emergence and One Dawn re-entry survey to ideally be undertaken at least two weeks apart.
High Suitability	A structure or 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.	Three surveys between May and September (with at least two surveys undertaken between May and August) One Dusk emergence and One Dawn re-entry survey to be undertaken. The third survey can be either Dusk or Dawn, undertaken at least two weeks apart.
Confirmed	This category is where positive evidence of bats has been recorded. For example, bats are found; bat droppings may be present at a suitable location for roosting bats; existing bat records may be associated with the structure.	

(* in this context conditions refers to the level of disturbance, light, height above ground, temperature, and humidity etc)

Table 2: Potential suitability of foraging and commuting habitat within an application boundary. Features should be assessed following this guide and professional judgement. Adapted from Collins J (2016)

Category	Description of commuting and foraging habitat	Survey effort to establish the value of commuting and foraging habitat**
Negligible Suitability	Negligible habitat features on site likely to be used by commuting or foraging bats.	None
Low Suitability	Habitat which could be used by low numbers of commuting bats such as an isolated gappy hedgerow, or an unvegetated stream unconnected to suitable habitat in the wider environment.	Transect /spot count/ timed search survey: One survey visit per active season AND Static automated surveys: One location per transect, over a five-

	Suitable, yet isolated habitat that could be used by foraging bats such as individual trees, or a patch of scrub.	night period, per season.
Moderate Suitability	Continuous habitat connected to the wider landscape that could be used by commuting bats, notably tree lines, hedgerows or linked back gardens. Habitat that is connected to the wider landscape which could be used by bats for foraging such as trees, open water, scrub or grassland.	Transect /spot count/ timed search survey One survey visit per month At least one survey should comprise dusk and pre-dawn (or dusk to dawn) within one 24-hour period. AND Static automated surveys: Two locations per transect, over a five-night period, per month (April to October)
High Suitability	Continuous, High-quality habitat that is well connected to the wider landscape which is considered to be highly conducive to commuting bats including river valleys, stream, hedgerows, and woodland edge High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree lined watercourses, and grazed parkland. Site is close to and connected to known roosts.	Transect /spot count/ timed search survey Up to two survey visit per month (April to October) At least one survey should comprise dusk and pre-dawn (or dusk to dawn) within one 24-hour period. AND Static automated surveys: Three locations per transect, over a five-night period, per month (April to October)

(** This is only a guide for survey effort required, the complexity of the site and the proposed disturbance / loss of features will determine the extent of works required on a site by site basis).

Badgers (*Meles meles*)

Badgers are protected under the Protection of Badgers Act 1992. It is illegal to wilfully kill, injure, disturb or take any badger, or attempt to do so and it is an offence to intentionally or recklessly damage, destroy, or obstruct access to any part of a badger sett.

Site assessments are undertaken in accordance with:
Harris S, Cresswell P and Jefferies D (1989). *Surveying Badgers*.

During the PEA, the site and the 30 metre zone of Influence considered for this species are searched for evidence of badger activity. The surveyor will identify evidence of activity, or habitat suitability for this protected species. Even if no evidence of badger activity is found, if local conditions suggest that the habitat may be suitable for badger, further surveys will be recommended.

Amphibians

The great crested newt and natterjack toad are fully protected under Schedule 5 of the wildlife and countryside Act 1981. The legislation protects these amphibians and their place of shelter or protection which may extend 500m from the breeding pond.

Great Crested Newt (*Triturus cristatus*)

The great crested newt, is fully protected under the Habitat regulations 2017, making it an offence to intentionally or recklessly kill, injure, disturb or take great crested newts, intentionally or recklessly damage destroy or obstruct access to any place used by the animal for shelter or protection.

The legislation protects these amphibians and their place of shelter or protection which may extend 500m from the breeding pond. Sites should be considered suitable to support great crested newts if distribution and historical records suggest newts may be present, there is a pond within 500m of the development or the development site includes suitable terrestrial habitat refuges.

Great crested newt site assessments are undertaken in accordance with:

English Nature. (2001) *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough. and Langton T, Beckett C and Foster J (2001) *Great Crested Newt Conservation Handbook*. Froglife, Halesworth.

Prior to a site visit, a desk study pond search is undertaken. When searching for ponds, Brindle & Green apply a total of 4 sources to establish their location. The following online sources are used:

OS MAPPING VIA PRO MAP, GOOGLE EARTH PRO, GOOGLE MAPS and MAGIC MAPS

Each identified pond (Access permitting) is subjected to a Habitat Suitability Index (HSI) assessment providing a score for each pond. This survey should be undertaken during the summer period to be fully accurate, however assumptions can be made out of season to guide survey recommendations.

Reptiles

Two species of reptile, the sand lizard and smooth snake, and their habitats are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981. All other native British reptiles are protected against intentional killing and injury.

British reptiles are found in exposed, undisturbed areas, such as areas without cultivation with differing areas of grassland sward length. Suitable areas include abandoned sand quarries, fallow farmland land, heathland, post-industrial land, railway corridors etc. If these types of suitable features are found then further reptile surveys are recommended.

Edgar P, Foster J and Baker J (2010) *Reptile Habitat Management Handbook*. Amphibian and Reptile Conservation, Bournemouth.

Gent T and Gibson S (2003) *Herpetofauna Workers Manual*. JNCC, Peterborough.

Hazel Dormouse (*Muscardinus avellanarius*)

Hazel dormice and their habitat are fully protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended). It is illegal to intentionally kill, injure or capture hazel dormice, damage or destroy a dormouse resting place or breeding site, deliberately or recklessly disturb a hazel dormouse while it's in a structure or place of shelter or protection, block access to structures or places of shelter or protection or possess, sell, control or transport live or dead hazel dormice, or parts of hazel dormice.

Site assessments were undertaken in accordance with:

Bright PW, Morris PA and Mitchell-Jones A (2006) *Dormouse Conservation Handbook 2nd Edition*. English Nature, Peterborough.

Visual survey methods are carried out on each site visit with particular attention given to woodland, hedgerows and scrub.

Invasive non-native weeds

Plant species such as Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens*

glandulifera) and giant hogweed (*Heracleum mantegazzianum*) are examples of invasive non-native weeds classified under Part II of Schedule 9 of the Wildlife and Countryside Act 1981. Any person who causes these species to grow or spread in the wild by dumping or other means is guilty of an offence. The plant and the soil these species are found growing in are classified as waste material and should be treated as such.

A simple walk over survey of the site to determine if these species are present was carried out during the PEA. A full list of Schedule 9 species can be found at Plantlife.org

Botanical Value

There are 60 plant species listed under Schedule 8 of the Wildlife and Countryside Act 1981 where it is an offence to intentionally pick or uproot or destroy any of these plant species.

During the PEA, a phase one habitat survey was undertaken following JNCC guidance. Further assessments are made to determine whether habitats comprise those identified as Habitats of principle Importance under S42 of NERC Act 2006.

Surveys can be undertaken year-round, however, if species or site conditions suggest higher botanical interest a full botanical survey will be recommended.

Invertebrates

The following invertebrates are European protected species and it is considered an offence if you capture, kill, disturb or injure, on purpose or by not taking enough care. It is also against the law to damage or destroy a breeding or resting place, obstruct access to their resting or sheltering places, possess, sell, control or transport live or dead protected invertebrates, or parts of them.

Large blue butterflies (eggs, caterpillars, chrysalises and adults)
Fisher's estuarine moths (eggs, caterpillars, chrysalises and adults)
Little ramshorn whirlpool snails

Approximately 400 additional species form the invertebrate species of Principal Importance in England and are included within Schedule 5 of the Wildlife and Countryside Act 1981 and S41 of NERC Act 2006.

If suitable habitat for invertebrates is identified during the PEA further surveys will be recommended.

Ecological Enhancement

In March 2012 the Department for Communities and Local Government published the National Planning Policy Framework. This sets out planning policies on protection of biodiversity through the planning system. The document states - *opportunities to incorporate biodiversity in and around developments should be encouraged.*

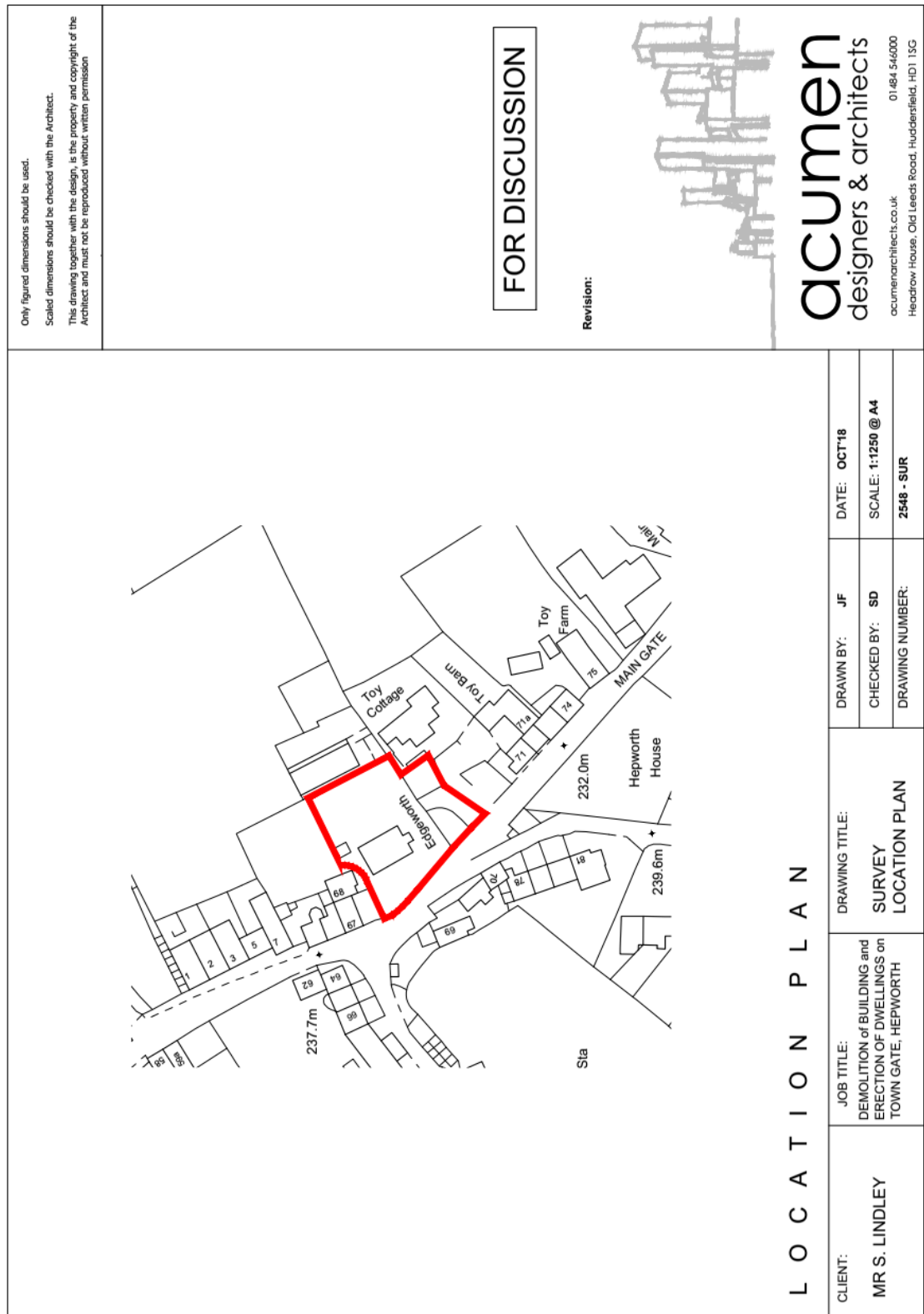
For new buildings guidance such as in the following will be used:
Williams, C. (2010) *Biodiversity for Low and Zero Carbon Buildings, A Technical Guide for New Build.* Riba Publishing.

Designated Sites

Designated areas are Sites of Special Scientific Interest (SSSI) while others have been designated as having European protection status. Local authorities can also designate areas for nature conservation and in doing so may impose local authority byelaws to support local nature conservation objectives. European designated status includes Special Protection Areas (SPAs) that preserve areas for birds and Special Areas of Conservation (SACs) which provides protection for habitats and the species which these habitats supports.

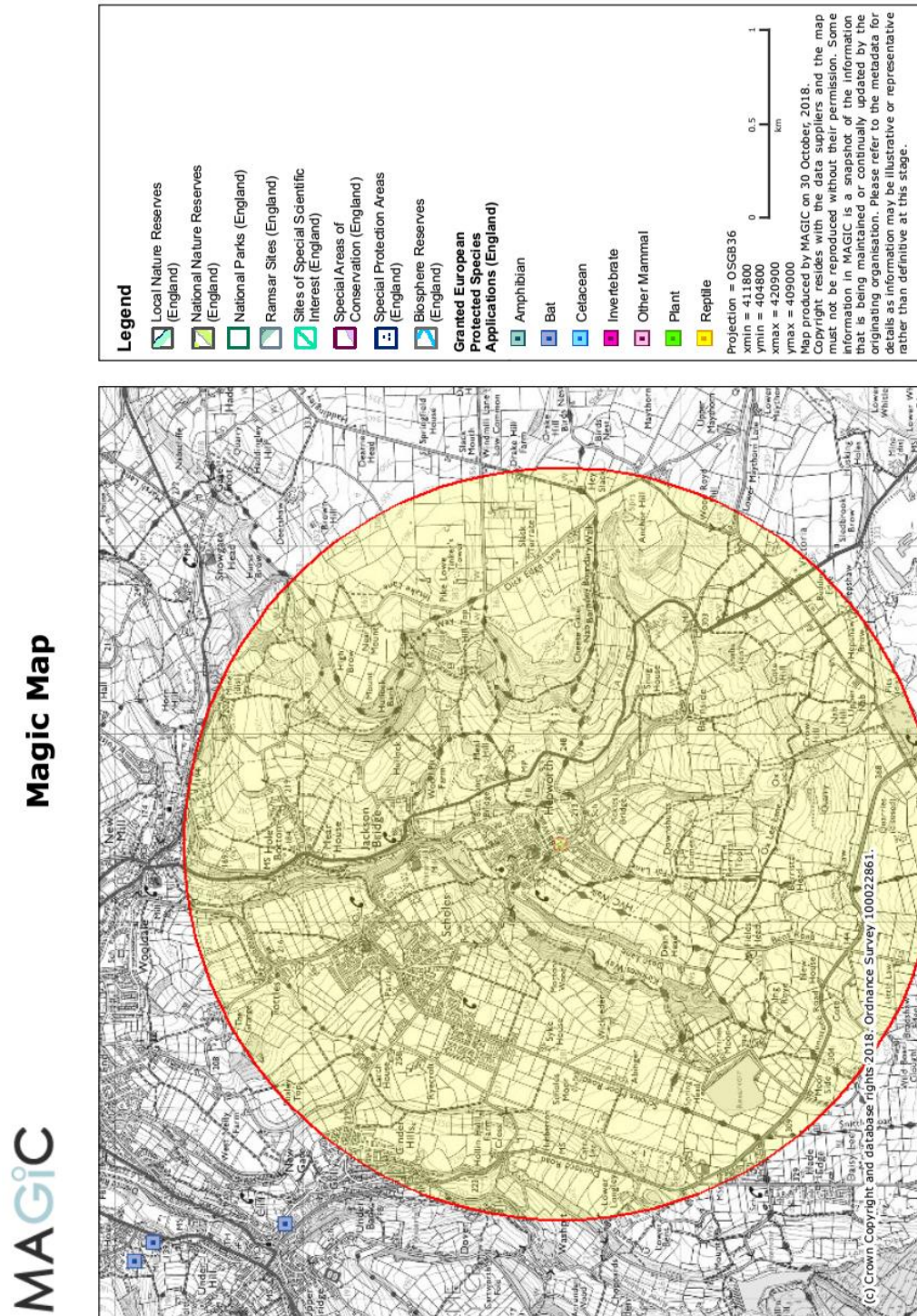
Information of Designated Protected Areas is received through Ecological Data Searches and Magic Map searches.

Appendix 6. Site Plan



Appendix 7. Magic Data

Two kilometre radius search of the project site.



30/10/2018

Site Check Report Report generated on Tue Oct 30 2018

You selected the location: Centroid Grid Ref: SE16410663

The following features have been found in your search area:

Granted European Protected Species Applications (England)
No Features found

Areas of Outstanding Natural Beauty (England)
No Features found

Local Nature Reserves (England) - points
No Features found

Local Nature Reserves (England)
No Features found

National Nature Reserves (England) - points
No Features found

National Nature Reserves (England)
No Features found

National Parks (England)
No Features found

Ramsar Sites (England) - points
No Features found

Ramsar Sites (England)
No Features found

Sites of Special Scientific Interest (England) - points
No Features found

Sites of Special Scientific Interest (England)
No Features found

Special Areas of Conservation (England) - points
No Features found

Special Areas of Conservation (England)
No Features found

Special Protection Areas (England) - points
No Features found

Special Protection Areas (England)
No Features found

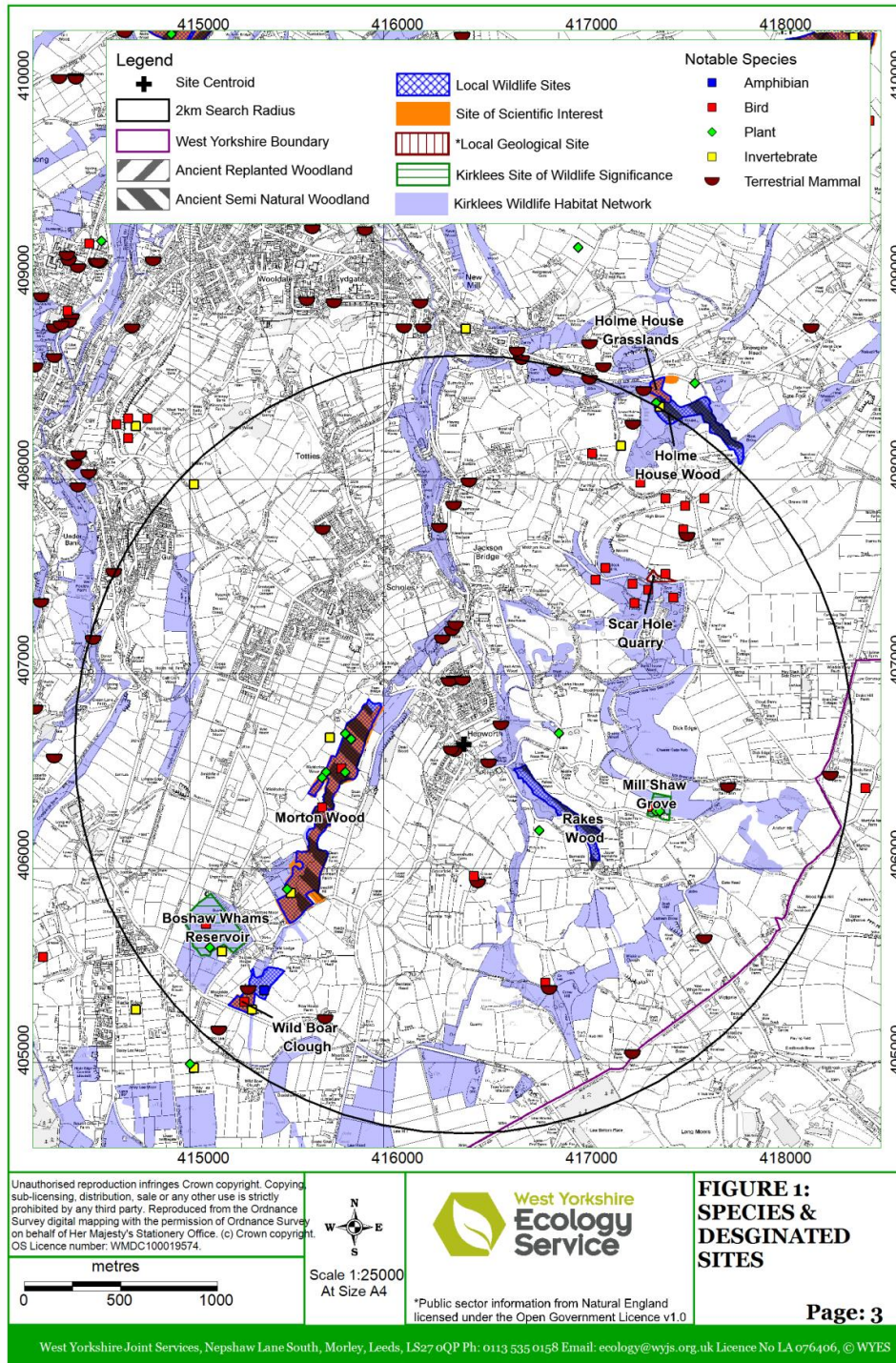
Biosphere Reserves (England) - points
No Features found

Biosphere Reserves (England)
No Features found

1/1

Appendix 8. Ecological Data Search Information

The project site can be found at: Grid Ref: SE 16409 06636



Appendix 9. Building Photographs

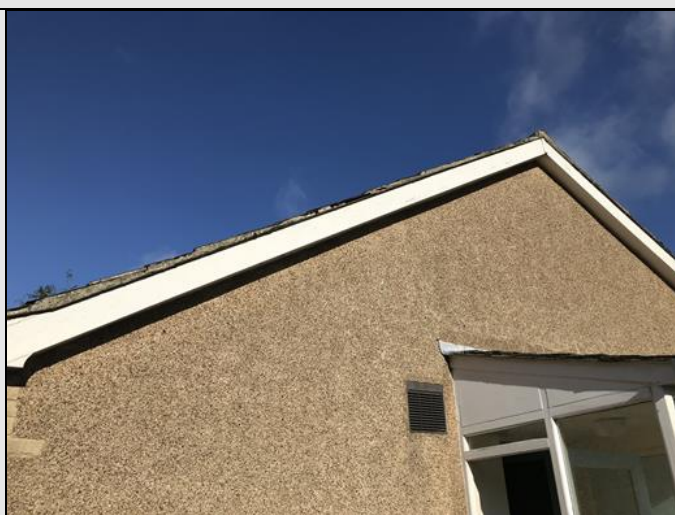
South-eastern elevation

Residential dwelling, single-storey on the south-western side, and two-storey on the north-western side due to the topography of the site.

Pitched slate roof, and pitched section of roofing on the extension on this elevation. Small gaps under tiling.



Small gaps in the mortaring along the verge of this gable-end.



South-western elevation

Small gaps under slate tiling and gaps along the ridge.

Stone-brick elevation, well-sealed.



Timber soffits and fascia boarding well-sealed. Guttering attached to the fascia boarding, with a small gap between.



North-western elevation

Soffits and fascia boarding well-sealed, gaps in the mortaring along the verge of the roof however.



North-eastern elevation

Two-stories this side of the building. Pebble-dashed walls in good condition.



Gaps under lifted slate tiles.



Soffits and fascia boarding well-sealed, small gap behind the guttering



Internal inspection

Roof void accessible via a ladder.

Recently cleared of storage but irregularly accessed.

Internal roof fully lined.



Gap in the roof allowing access around a metal chimney.



Small number of bat droppings located in the void amongst a high level of mouse droppings.



External features

Small garage on the north-western boundary held a corrugated asbestos roof, a sub-optimal material for roosting bats.



