Phase 1 Habitat Survey and Protected Species Assessment

Sugar Street,
Rushton Spencer,
Staffordshire

John Rose Associates

Report Reference: CL831/005/001

Prepared by
Clear Environmental Consultants Limited
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ENVIRONMENTAL DRAINAGE FLOOD RISK ECOLOGY

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1 Summary

Clear Environmental Consultants Ltd was commissioned by John Rose Associates to undertake an assessment on land off Sugar Street, Rushton Spencer, Staffordshire.

Current proposals comprise the construction of a new housing development. As part of these proposals the main house (B1) is to be partially demolished and its garage (B2) is to be completely demolished. As a result, an internal bat building assessment was recommended following the initial survey. This document is a revision of the report, revised to incorporate the results of the building assessment.

The desk study, Phase 1 Habitat Survey and Protected Species Assessment of the habitats on this site are considered to be of low ecological value in a regional context as they are not notable or rare. One hedgerow (H2) was found to be of conservation value and should be retained if feasible.

The NBN Gateway and the Local Biological Records Centre highlighted a number of protected species within 2km of the proposed development.

The site consisted of a pasture field and an adjacent small area of broadleaved woodland. A house and associated garage were present on the eastern boundary. The site was located in a rural situation with surrounding mature trees and open countryside.

The trees on site were considered to provide potential breeding bird habitats and foraging opportunities for birds. Tree removal where necessary, should be undertaken outside of the bird-breeding season (mid-March – September inclusive) as all birds, their eggs, nests and dependant young are protected under the *Wildlife and Countryside Act 1981 (as amended)*.

The bat building assessment recorded several potential bat access points associated with B1 & B2 and the surrounding area provided potential for foraging bats; furthermore the desk study highlighted records of bats within 1 km of the proposed development. It was concluded that B1 and B2 have low potential for supporting roosting bats, however as B1 is to be partially demolished under current proposals and B2 is to be completely demolished, a suite of nocturnal surveys, commensurate with low potential buildings should be undertaken.

Summary of Recommendations:

Recommended surveys	Action
Bat Nocturnal Surveys	Two emergence (dusk) and one roost (dawn) survey between May and September
Himalayan Balsam	Removal of invasive weed species (Appendix 6 for details)

2 Introduction

2.1 Background

Clear Environmental Consultants Ltd was commissioned by John Rose Associates to undertake a Phase 1 Habitat Survey and Protected Species survey.

Current proposals comprise the construction of a new housing development. As part of these proposals B1 is to be partially demolished and B2 is to be completely demolished.

The findings from the survey are presented in this report, together with a preliminary assessment of the ecological status of the site, in order to:

- identify any potentially significant ecological constraints that may affect the development proposal; and
- recommend further surveys should they be necessary.

2.2 Scope of this report

The Phase 1 Habitat survey is based on a desk top study and field survey using standard Phase 1 Habitat Survey methodology (JNCC 2010). This approach is designed to identify broad habitat types on site, to identify the potential of habitats to support protected species and to provide an overview of the ecological interest on site. It is generally the most widely used and professionally recognised method for initial ecological site appraisal.

The building assessment was based on standard methodologies set out by Natural England, the Bat Conservation Trust (BCT) and the Joint Nature Conservation Committee (JNCC) in order to identify the likelihood of bats using the buildings for roosting, foraging and commuting purposes.

2.3 Site context and status

The site is situated in the village of Rushton Spencer, Staffordshire. It sits to the south of Rushton's Church of England Primary School and has a water course adjacent to the south western boundary.

The location of the site is provided in Figure 2.1 overleaf, with the broad location of the site circled in red.

Figure 2.1: OS map view of Rushton Spencer

Image produced from the Ordnance Survey Get-a-map service. Image reproduced with kind permission of Ordnance Survey and Ordnance Survey of Northern Ireland.

3 Regulatory and Policy Framework

Articles of British wildlife and countryside legislation, policy guidance and both Local and National Biodiversity Action Plans (BAP's) are referred to within this report, including:

- The Wildlife and Countryside Act 1981 (as amended);
- The Conservation of Habitats and Species Regulations 2010;
- 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;
- Planning Policy Statement 9: Biodiversity and Geological Conservation (2005);
- The Countryside and Rights of Way Act 2000;
- The Hedgerow Regulations 1997;
- The Natural Environment and Rural Communities Act 2006;
- The United Kingdom Biodiversity Action Plan 2006; and
- The Local Biodiversity Action Plan (LBAP).

4 Methodology

4.1 Desk Study

A search was conducted through the Staffordshire Ecological Records (SER) and the NBN Gateway website (data.nbn.org.uk), for any present or historical protected species data within a 2km radius of the site.

A search was completed of the Multi Agency Geographic Information for the Countryside on-line mapping service (www.magic.gov.uk) for statutory designated sites.

4.2 Phase 1 Habitat Survey

A Phase 1 Habitat Survey of the site was conducted on 19th April 2011. Habitats were described and mapped following standard Phase 1 Habitat Survey methodology (JNCC 2010). The survey was conducted by a suitably experienced ecologist. A Phase 1 Habitat Plan is provided in Appendix II.

Hedgerows were surveyed individually using the Hedgerow Evaluation and Grading System (HEGS) after Clements and Toft (1993) to enable identification and evaluation of hedgerows within the site. Hedges were graded on a scale of 1-4:-

1 = high to very high ecological value.
2 = moderately high to high ecological value.
3 = moderate ecological value.
4 = low ecological value.

Hedgerows were also assessed using the Hedgerow Regulations 1997 criteria (REGS) for important hedgerows. These regulations in addition to considering the wildlife and landscape value of the hedgerow, covered by the HEGS assessment, assess species diversity per 100m.

A full list of plant species identifiable on site during the survey is presented in Appendix IV. Nomenclature follows Stace (1997) for vascular plant species.

4.3 Protected Species Assessment

The potential of the site to provide habitat for protected species was assessed from field observations carried out at the same time as the habitat survey, combined with the results of the desk top study.

Badgers Meles meles
Signs of badger activity were searched for, such as latrines, pathways, areas of digging, footprints and setts. The survey followed advice set out by Scottish Natural Heritage (2003) and Harris *et al* (1989) and was undertaken by a surveyor with the experience required as recommended by the Institute of Ecology and Environmental Management (2003).

Bats
The habitats at the site were assessed for their suitability for bat roosts by surveying the trees and identifying features such as fractures, cracks and loose bark. Any trees displaying these access points were then investigated further for signs of bat droppings, feeding remains such as moth wings, urine and fur oil stains.

Reptiles
The habitat on site was assessed for its suitability to support reptiles. These assessments were made in accordance with Natural England (2004), Foster and Gent (1996) and Froglife (1999).

Birds
Habitats on site were assessed for their suitability in relation to birds. Suitable nesting habitat, woody vegetative growth offering cover structurally appropriate properties for nest building, was identified and incidental bird records were made during the survey.

Great crested newt Triturus cristatus
The terrestrial habitat on site and in the surrounding area was assessed for its potential to support great crested newts in accordance with English Nature (2001). Ponds within 500m of the site boundary were searched for during the desk top study.

4.4 Bat Building Assessment

The buildings and surrounding area were assessed to determine their potential for supporting protected species following standard methodology set out by the Bat Conservation Trust (2007):

- The surrounding area was assessed for potential bat commuting and foraging routes;

- Buildings were searched externally and internally for any evidence of use by bats such as bat droppings, feeding remains such as moth wings, urine and fur oil stains; and
- Buildings were inspected externally and internally, using torches where applicable, to identify any characteristics of a potential bat roost such as cracks or holes in the brickwork or roofing, hanging tiles with gaps or entrances for bats to fly through.

Buildings offer typical characteristics of a potential bat roost. In accordance with the *Bat Conservation Trust (2007) Bat Surveys - Good Practice Guidelines,* sites with increased likelihood of bats being present are:

- Pre 20th Century detached constructions
- Agricultural buildings of traditional brick, stone or timber
- Large 20cms roof timbers with mortise joins cracks and holes
- Entrances for bats to fly through
- Hanging tiles with gaps
- Buildings or built structures close to good foraging habitat, in particular mature trees, parkland and woodland or wetland, especially in rural settings.

5 Limitations

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.

This Phase 1 habitat survey does not constitute a full botanical survey or a Phase 2 pre-construction survey and accurate GIS mapping for invasive or protected plant species.

The Phase 1 Habitat Survey was carried out at an optimal time of year and is considered that sufficient information was obtained relating to individual habitat types on site to make an accurate assessment of their importance in a local context.

The protected species assessment provides a view of the likelihood of protected species occurring on the site based on the known distribution of species in the local area and the suitability of the habitat. It should not, however, be taken as providing a full and definitive survey of any protected species group and is only valid at the time the survey was carried out.

Where a lack of records is found during the desk search for a defined geographical area, it does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

6 Results

6.1 Desk Study

A search was completed of an on-line mapping service (www.magic.gov.uk) for statutory designated sites.

A search was conducted through the SER and NBNG websites (data.nbn.org.uk/) for any present or historical protected species data within a 2 km radius of the site.

Full data sets of information obtained can be seen in Appendix V.

6.1.1 Designated Sites

The site itself does not fall within any designated areas; however the Peak District National park is located 1.2km north. The Peak District is made up of two areas, in the centre is the White Peak, with deep dales and undulating fields characteristic of limestone country. Around the north, east and west is the Dark Peak, a more somber area of peat moorland, with edges of precipitous millstone grit, where heather and bracken predominate.

Nine areas of ancient woodland were also present within the 2kn radius of the site the closest being Fadge Clough 900m to the north.

The following table shows the name and distance of the woodlands

Name of woodland	Distance (m/km)
Fadge Clough	900m north
Brandylee Wood	1km north
(no name)	1.1km west
(no name)	1.2km west
Barns Wood	1.3km south
(no name)	1.3km north east
Rookery Wood	1.4km north
Flash Wood	1.7km north
Ravensclough Wood	1.7km north east

A number of Non-statutory Ecological Sites (SBIs/BASs) were highlighted during the desktop study.

Site	Distance (m/km)
Rushton Bank (west of)	990m south west
Beat Lane Hedges	910m south west
Rudyard Dismantled Railway	300m east
Hug Bridge	1.4km north west
Fadge Clough (north of)	1.1km north
Flashcroft Coppice	980m north east
Dane Feeder Canal	1.4km north
Meal-ark Clough	1.7km north

6.1.3 Records of Protected and Notable Species

SER identified 10 records of protected species within the local area. A bat (unknown species) was recorded in 2002 1km south east. Badger records were also supplied covering 4 grid squares the location of which surrounds Rushton Spencer. The records were dated from 1985 through to 2006.

The NBNG highlighted a number of great crested newt records within 1.2km south west of the site boundary. Three of the records were dated in the 1970s with the additional three in 1983 and 1988.

A full data set can be found in Appendix V.

6.2 Phase 1 Habitat Survey

A detailed Phase 1 Habitat Survey can be found in Appendix II with photographs in Appendix V.

Broadleaved Woodland
Located on the southern end of the field was a small fenced area of immature broadleaved plantation woodland. Within this woodland canopy species included silver birch *Betula pendula*, field maple *Acer campestre*, ash *Fraxinus excelsior* and cherry *Prunus* sp. The ground layer comprised ground elder *Aegopodium podagraria,* bramble *Rubus fruticosus,* angelica *Angelica sylvestris,* lesser celandine *Ranunculus ficaria* and wood avens *Geum urbanum.*

A small patch of invasive Himalayan balsam *Impatiens glandulifera* was located in the southernmost corner of the site.

Species Poor Semi-Improved Grassland
The site was dominated by one large field compartment which was previously grazed pasture, with a water course running along its south west boundary. Towards the northern end of the field species

composition became more diverse. Plant species present included perennial rye grass *Lolium perenne*, meadow foxtail *Alopecurus pratensis* and Yorkshire fog *Holcus lanatus*. Herbaceous species included dandelion *Taraxacum officinale*, common nettle *Urtica dioica,* creeping buttercup *Ranunculus repens* and daisy *Bellis perennis.*

Tall ruderal with compost heaps
Tall ruderal vegetation with compost heaps was present in the south eastern corner adjacent to the area of broadleaved woodland. This area was dominated by common nettle *Urtica dioica*, with frequent broadleaved dock *Rumex obtusifolius*, hogweed *Heracleum sphondylium,* and creeping thistle *Cirsium arvense.* Grasses present also included meadow foxtail, Yorkshire fog *Holcus lanatus* and couch grass *Elymus repens*.

Ornamental planting
Ornamental planting was present within a garden area associated with the house on the eastern boundary. The garden had been neglected since the house was vacated. Species present included tulip *tulipa* sp., forsythia *Forsythia* sp., magnolia *Magnolia officinalis,* honeysuckle *Lonicera japonica,* geranium *Geranium* sp., and oxlip *Primula elatior*. Located within the garden in the north west corner was a neglected vegetable patch with species such as rhubarb *Rheum rhaponticum,* blackcurrant *Ribes nigrum,* gooseberry *Ribes* sp. and raspberry *Rubus* sp. present.

Hedgerow
Two lengths of hedgerow were present on the south eastern and eastern boundaries of the site. H1 was approximately 1-2m in height and 0-1m in width and had no gaps. The hedgerow was dominated by hawthorn.

H2 was approximately 4m+ in height and 3m+ in width with 10-0% gaps. The hedgerow was also dominated by hawthorn, with abundant holly, elder and blackthorn and standard trees of sliver birch, ash and sycamore.

Following HEGS assessment H1 scored a conservation value of low (4+). H2 scored a conservation value of high (2+) the hedgerows were not classified as 'Important' under the Hedgerow Regulations (1997) ecology criteria due to a lack of associated features and species diversity.

Both hedgerows qualify as UK BAP Priority Habitats due to the presence of over 80% native canopy species.

Full species list can be found in Appendix IV.

6.3 Protected Species Assessment

Badger
Badger hair was found on the barbed wire fence in the north western corner of the site. Associated with this was a well-worn mammal path leading under the fence and into the surrounding environs. This path also led into site and across the field where it petered out. The site did provide suitable foraging habitat for badgers within the field, although no evidence of badgers (such as setts, latrines, snuffle holes or footprints) was recorded at the time of survey within the site boundary and a 30m buffer area surrounding the site.

Bats
The trees on site were sub-optimal for supporting roosting bats due to their lack of features such as cracks and rot holes. These trees were classified as Category 3 according to BCT guidelines (2007).

Bats in relation to buildings are discussed in depth below (section 6.4).

Reptiles
The site provided suitable habitats for supporting reptiles within the field compartment, particularly along the over-grown margins associated with the hedgerows.

Birds
The site provided nesting and foraging opportunities for bird species in the hedgerows and trees.

Great Crested Newts (GCN)
The site provided limited, low quality terrestrial habitat due the dominance of hard standing and buildings. Furthermore, no water bodies were recorded within 500m of the site boundary.

6.4 Bat Building Assessment

Appendix III details the full building assessment table and photographs are provided within Appendix IV.

B1
B1 was a two storey; brick built end of terrace residential dwelling which is currently unoccupied. The roof was pitched with a number of single storey single-pitched extensions to the rear. A conservatory was also present to the rear. Skylights could be seen in the rear aspect of the roof implying part of the roof void had been converted. Wooden framed windows and uPVC guttering were also present, along with barge boards on the extensions. The northern elevation of the building has a gable end.

Potential access points for bats were identified through gaps in the mortar at the ridge and several slipped roof tiles.

Internally two roof voids were present which were separated by fire walls. Wooden beams and under-felting were present within both roof voids and insulation covered in carpet was also noted on the floor. No visible gaps were observed in the under-felting which would provide potential access points for bats into the main area of the roof void.

It was considered that there is potential for bats to roost between the roofing tiles and under-felt and due to the sealed nature of the under-felt any potential evidence may have been concealed.

Vent bricks were noted in the gable end of the second roof void which was present over the northernmost section of the building; however it was considered the ventilation holes were too small (~5mm diameter) to enable bat access.

No evidence of bats was recorded during the survey, but there remains low to moderate potential for bats to be roosting in the building, between the roofing tiles and under-felt.

B2
B2 was a detached single storey, brick built double garage with a small metal single pitched lean-to on the north western aspect. The garage had a pitched, clay tiled roof with overhanging eaves. Gables, barge boards and flashing were also present.

Potential access points for bats were identified under the over hanging eaves where there were gaps between the wooden frame and the wall plate. There were also several areas of missing mortar and gaps in the roof tiling.

Internally a roof void was present which had been used as part of the living accommodation. The roof void was boarded out with plasterboard and two skylights were present in the roof. Two storage areas were located running lengthways along the room within which Tyvek under-felting was present. This brand of under-felt is smooth to the touch and therefore does not enable bats to gain necessary purchase reducing the likelihood of bats roosting on the internal face of the felt.

Open access was available between the main roof void area and the storage areas in the eaves. Dead peacock *Aglais io* and tortoiseshell *Aglais urticae* butterflies were observed within the main (living accommodation) area however these were considered not to be associated with bats as they were intact on the floor, rather than showing signs of being bat foraging remains.

No evidence of bats was recorded during the survey, but as with B1, there exists low to moderate potential for bats to be roosting in the cavity between the roof felt and roof tiles.

The habitats surrounding the site provide suitable foraging opportunities for bats, particularly along the mature hedgerows, open grassland and the water course.

7 Conclusions

7.1 Phase 1 Habitat Survey

Habitats

Overall on the basis of the desk study, Phase 1 Habitat Survey and protected species assessment the habitats on this site are considered to be of low to moderate ecological value in a regional context as the habitats and species recorded on site are not notable or rare and are present within the wider area.

The site was dominated by grassland, buildings and a small area of broadleaved woodland and hedgerows.

It is considered that the habitats are unlikely to be a constraint to development as long as the hedgerows are maintained. Removal of the grassland compartment would not result in a significant impact to ecology and nature conservation within the local area. The hedgerows, scrub and trees were considered to be of local interest, providing habitat 'stepping stones' and habitat linkages for a number of faunal species within the local area and should be retained where possible.

Furthermore, the hedgerows qualified as UK BAP Priority Habitats. Under the provisions of the Natural Environment and Rural Communities Act (NERC 2006) UK BAP habitats and species are material considerations of the planning process. Therefore, the hedgerows should be retained and managed if feasible, or suitable native hedgerows planted in suitable nearby locations as compensation.

7.2 Protected Species Assessment

Potential for protected species was recorded on site, by the two buildings which have low to moderate potential to support roosting bats. See section 7.3 below

Badgers do not have any setts on site or within a 30m buffer surrounding the site at present, but may use the site to pass through or to forage. This presumption is supported by the presence of badger hair on the boundary fence, although this is not considered a development constraint.

7.3 Bat Building Assessment

The buildings (B1 and B2) were located within a rural environment and as such were surrounded by mature trees, areas of open grassland and hedgerows which are considered to be suitable foraging and potential roosting habitat for bats. The buildings had potential bat access points and due to the presence of under-felting roosting bats cannot be ruled out at this stage.

8 Recommendations

8.1 Habitats

The habitats and species present on site were common and widespread within the local area and did not have any inherently high ecological value; however they are native to the area and support a wide range of fauna; therefore planting associated with the development should, where possible also be native, and ideally of local origin. We would be happy to consult with you further in relation to the planting specifications and landscape strategy if required.

Himalayan balsam is a highly invasive non-native species which is a fast growing and able to outcompete surrounding vegetation and poses a flood risk issue. The stands present should be eradicated from the site to prevent further spread. Additional information on eradication is provided in Appendix VII.

8.2 Protected Species Assessment

Tree removal where necessary, should be undertaken outside of the bird-breeding season (mid-March – September inclusive) as all birds, their eggs, nests and dependant young are protected under the *Wildlife and Countryside Act 1981 (as amended)*. Where this is not possible an inspection of the trees prior to removal by an experienced ecologist should be undertaken. This will ensure that any active nests found are suitably protected until the young have fledged.

8.3 Bat Building Assessment

The bat building assessment found potential bat access points and the surrounding area provided potential for foraging bats; furthermore the desk study highlighted records of bat species within 1 km of the proposed development. Internally, no evidence of bats was observed however due to the sealed nature of the under-felt it is possible that bats were roosting between the tiles and under-felting. It was concluded that B1 and B2 have low to moderate potential for supporting roosting bats, however as B1 is to be partially demolished under current proposals and B2 is to be completely demolished a suite of nocturnal surveys is recommended to be carried out.

The nocturnal surveys should comprise two emergence (dusk) surveys and one roost (dawn) survey to assess the levels of bat activity associated with the buildings with the aim of determining the

status of any bat roosts which might be present. The outcome of these surveys will then serve to inform the need for a mitigation strategy and any post-planning licensing requirements.

Bat activity surveys should be undertaken between May and September and in full accordance with BCT guidance, with surveyors equipped with bat detectors surveying the buildings from a fixed location on the site to allow full coverage of the buildings. The evening survey should commence approximately 30 minutes before sunset and last for approximately two hours after sunset and the dawn survey should commence approximately two hours before dawn and continue until approximately 30 minutes after sunrise.

9 References

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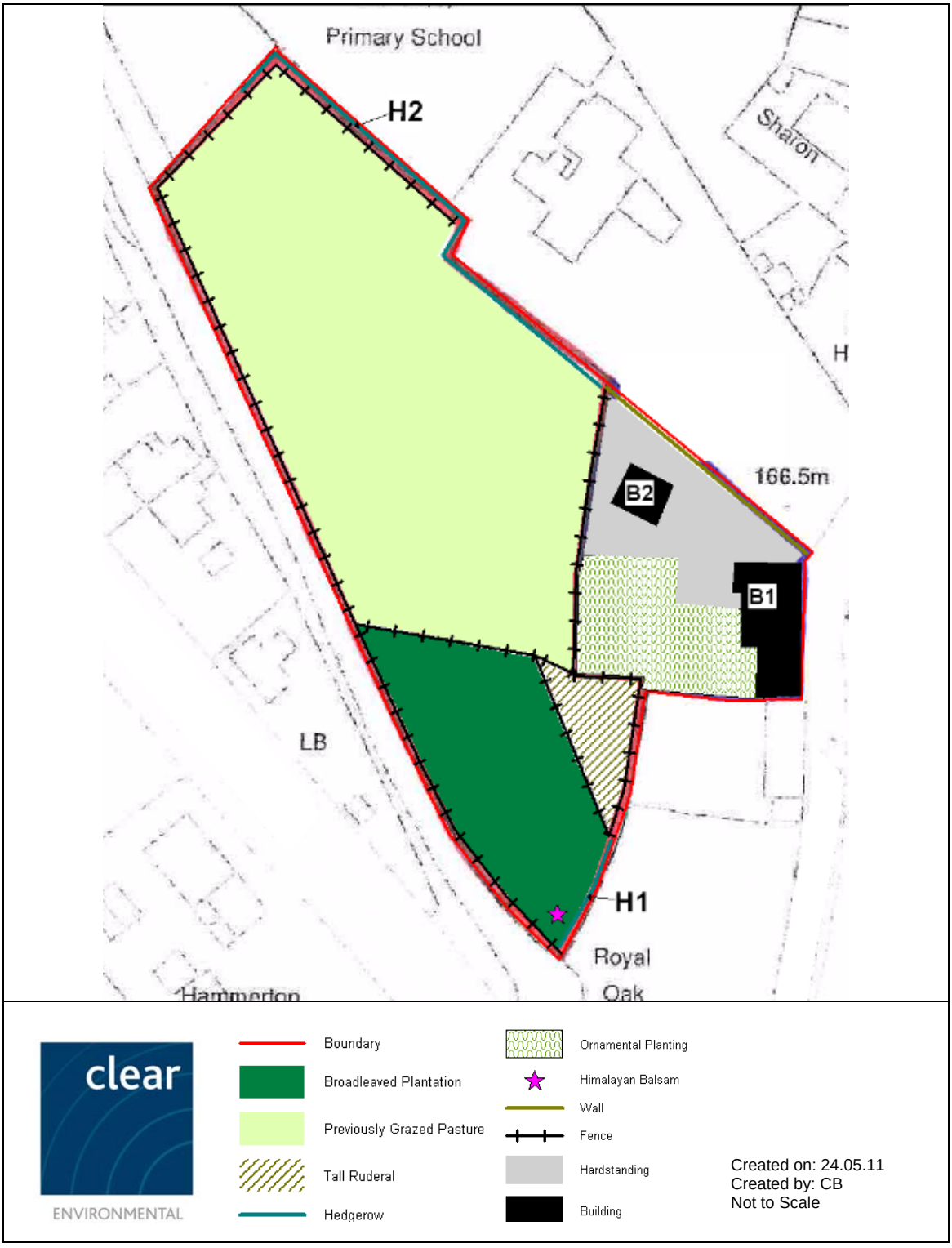
Appendix I: Phase 1 Habitat Survey Plan


Primary School
H2
Sharon
H
166.5m
B2
B1
LB
H1
Royal
Oak
Hammerton
clear
ENVIRONMENTAL
Boundary
Broadleaved Plantation
Previously Grazed Pasture
Tall Ruderal
Hedgerow
Ornamental Planting
Himalayan Balsam
Wall
Fence
Hardstanding
Building
Created on: 24.05.11
Created by: CB
Not to Scale

Appendix II: Building Assessment Table

Building Number	**Building Description** *No. of Storeys* *Brick/stone built* *Cladding* *Windows* *Doors* *Chimneys*	**Roof Description** *Type of roof* *Flat/pitched* *Eaves*	**External Features**					**Internal Features** *Roof void* *Trusses* *Rafters* *Battens* *Sarking/Underfelting* *Dimensions*	**Potential Bat Access Points** *Gaps in mortar* *slipped tiles* *Hanging tiles*	**Bat Potential/Evidence Recorded** *Droppings* *Moth wings* *Cobwebs* *Evidence (Low/Mod/High)* *Potential (Low/Mod/High)*
			Gables	*Barge boards*	*Soffits*	*Fascias*	*Flashing*			
B1	2 storey, brick built. Wooden window frames, conservatory to rear	Clay tiled pitched and mono pitched roofs, roof lights to rear and on extensions	✓	×	×	×	✓	Fire walls separating the 2 separate roof voids. Wooden beams and under-felting present. Insulation and carpets present on floor	Missing mortar at ridge of extension by conservatory, slipped tiles to rear and front In northern most roof void vent bricks present	Low potential (due to roof lights indicating loft conversion) good condition overall. Potential evidence could have been concealed in well sealed under-felt. Good foraging habitat surrounding, pasture, trees and hedgerows
B2	detached single storey double garage and small metal lean-to at rear	pitched roof with clay tiles, over hanging eaves, roof lights	✓	✓	×	×	✓	Main roof void & 2 side storage areas. Tyvek under-felting present in storage areas. Plaster-boarding in main area.	Over hanging eaves, missing mortar, gaps under tiles, false ceiling with access ladder, roof lights	Low potential (due to roof lights indicating loft conversion) good overall condition. Dead peacock and tortoiseshell butterflies in tact in main area-not thought to be bats. Good foraging habitat surrounding, pasture, trees and hedgerows

Appendix III: Species List

Broadleaved Plantation

Acer campestre	Field maple
Aegopodium podagraria	Ground elder
Angelica sylvestris	Angelica
Betula pendula	Silver birch
Cardamine pratensis	Cuckoo flower
Prunus sp	Cherry
Cornus sanguinea	Dogwood
Corylus avellana	Hazel
Dactylis glomerata	Cock's foot
Daucus carota	Wild carrot
Fraxinus excelsior	Ash
Geum urbanum	Wood avens
Heracleum sphondylium	Hogweed
Hyacinthoides non-scripta	Bluebell
Impatiens glandulifera	Himalayan balsam
Lolium perenne	Perennial rye grass
Lonicera periclymenum	Honeysuckle
Malus sp.	Apple
Narcissus sp	Daffodil
Primula vulgaris	Primrose
Prunus spinosa	Blackthorn
Quercus robur	Pedunculate oak
Ranunculus ficaria	Lesser celandine
Ranunculus repens	Creeping buttercup
Rubus fruticosus	Bramble
Rumex acetosa	Common sorrel
Taraxacum officinale	Dandelion
Urtica dioica	Common nettle
Veronica chamaedrys	Germander speedwell
Viburnum	Viburnum

Species Poor Semi-Improved Grassland

Alopecurus pratensis	Meadow foxtail
Bellis perennis	Daisy
Cardamine pratensis	Cuckoo flower
Cerastium fontanum	Common mouse ear
Cirsium arvense	Creeping thistle
Cirsium vulgare	Spear thistle
Daucus carota	Wild carrot
Holcus lanatus	Yorkshire fog
Lathyrus pratensis	Meadow vetchling
Lolium perenne	Perennial rye grass
Luzula campestris	Field wood rush
Myosotis arvensis	Forget-me-knot
Plantago lanceolata	Ribwort plantain
Poa annua	Annual meadow grass
Ranunculus repens	Creeping buttercup

Rumex obtusifolius	Broadleaved dock
Stellaria media	Chickweed
Taraxacum officinale	Dandelion
Trifolium repens	White clover
Urtica dioica	Common nettle
Vicia sepium	Bush vetch

Ornamental planting

Alchemilla vulgaris	Ladies mantle
Arum maculatum	Lords 'n' ladies
Berberis aristata	Barberry
Cardamine pratensis	Cuckoo flower
Carduus crassifolius	Cardoon thistle
Chaenomeles speciosa	Flowering quince
Conifer sp.	Conifer
Euphrasia officinalis	Eye bright
Forsythia sp	Forsythia
Geranium sp	Geranium
Holcus lanatus	Yorkshire fog
Lamium purpureum	Red dead nettle
Ligustrum vulgare	Garden privet
Lolium perenne	Perennial rye grass
Lonicera periclymenum	Honeysuckle
Magnolia sp	Magnolia
Mentha sachalinensis	Garden mint
Myosotis arvensis	Forget-me-not
Narcissus sp	Daffodil
Primula elatior	Oxslip
Ranunculus repens	Creeping buttercup
Rheum rhaponticum	Rhubarb
Ribes grossularia	Gooseberry
Ribes nigrum	Blackcurrant
Rosea sp	Rose
Rubus idaeus	Raspberry
Rumex acetosa	Common sorrel
Salix sp	Willow
Stachys sylvatica	Hedge woundwort
Taraxacum officinale	Dandelion
Trifolium repens	White clover
Tuplia sp.	Tulip
Viburnum	Viburnum
Vinca maculata	Vinca
Viola sp.	Violet

Tall ruderal with compost heaps

Alopecurus pratensis	Meadow foxtail
Anthriscus sylvestris	Cow parsley
Cirsium arvense	Creeping thistle
Elymus repens	Couch grass

Galium aparine	Cleavers
Heracleum sphondylium	Hogweed
Holcus lanatus	Yorkshire fog
Myosotis arvensis	Forget-me-not
Narcissus sp	Daffodil
Plantago lanceolata	Ribwort plantain
Ranunculus repens	Creeping buttercup
Rumex acetosa	Common sorrel
Rumex obtusifolius	Broadleaved dock
Urtica dioica	Common nettle

Appendix IV: Photographs

Photograph 1. Front of the B1 facing the road.	
Photograph 2 Rear of B1	

Photograph 3. Front of B2, a double garage.	
Photograph 4 Lean-to, to the rear of B2	

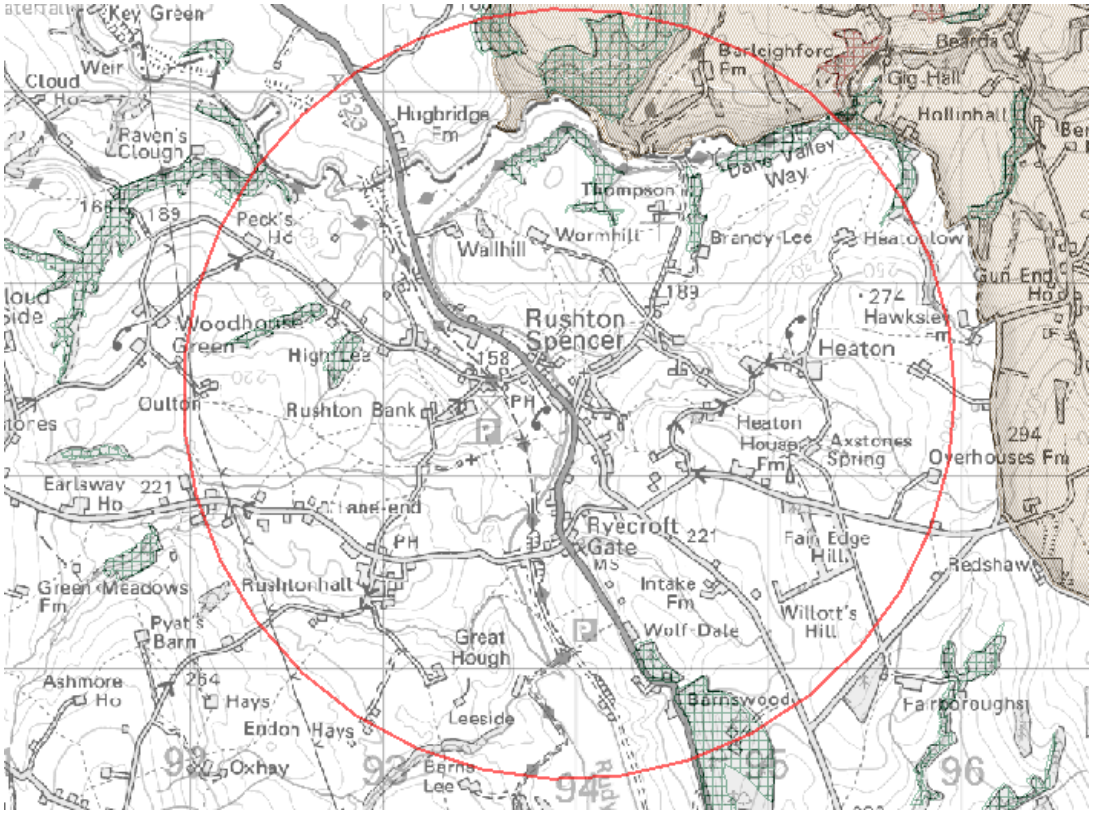
Photograph 5 The previously grazed pasture	
Photograph 6 Broadleaved woodland. Himalayan Balsam was located in this area.	

Photograph 7 Watercourse adjacent to the site boundary	
Photograph 8 A section of hedgerow 2	

Photograph 9 Ornamental planting adjacent to B1.	

Appendix V: Desk Study Results

Data from MAGIC



clear
ENVIRONMENTAL

Key

- Woodland Trust Sites (England)
- Ancient Woodland (England)
- Ancient & Semi-Natural
- Ancient Replanted
- Local Nature Reserves (England)
- National Nature Reserves (England)
- Special Protection Areas (England)
- Special Areas of Conservation (England)
- Sites of Special Scientific Interest (England)
- Important Bird Areas (England)
- National Parks (England)

MAGIC

Site Check Report

You clicked on the point:
Grid Ref: SJ 939 624
Full Grid Ref: 393969 , 362420

The following features have been found within 2,000 metres of your search point:

Woodland Trust Sites (England)
There are no features within your search area.

Ancient Woodland (England)

Grid Reference	Wood Name	Theme ID	Theme Name
sj942641	ROOKERY WOOD	1104407	ANCIENT & SEMI-NATURAL WOODLAND
sj941635	FADGE CLOUGH	1104402	ANCIENT & SEMI-NATURAL WOODLAND
sj936643	FLASH WOOD	1104401	ANCIENT & SEMI-NATURAL WOODLAND
sj946633	BRANDYLEE WOOD	1104405	ANCIENT & SEMI-NATURAL WOODLAND
sj910631	RAVENSCLOUGH WOOD	1104392	ANCIENT & SEMI-NATURAL WOODLAND
sj949636		1411718	ANCIENT & SEMI-NATURAL WOODLAND
sj927626		1411716	ANCIENT & SEMI-NATURAL WOODLAND
sj944609	BARNS WOOD	1104406	ANCIENT & SEMI-NATURAL WOODLAND
sj947606	BARNS WOOD	1104406	ANCIENT & SEMI-NATURAL WOODLAND
sj924627		1411717	ANCIENT & SEMI-NATURAL WOODLAND

Local Nature Reserves (England)
There are no features within your search area.

National Nature Reserves (England)
There are no features within your search area.

Special Protection Areas (England)
There are no features within your search area.

Special Areas of Conservation (England)
There are no features within your search area.

Sites of Special Scientific Interest (England)
There are no features within your search area.

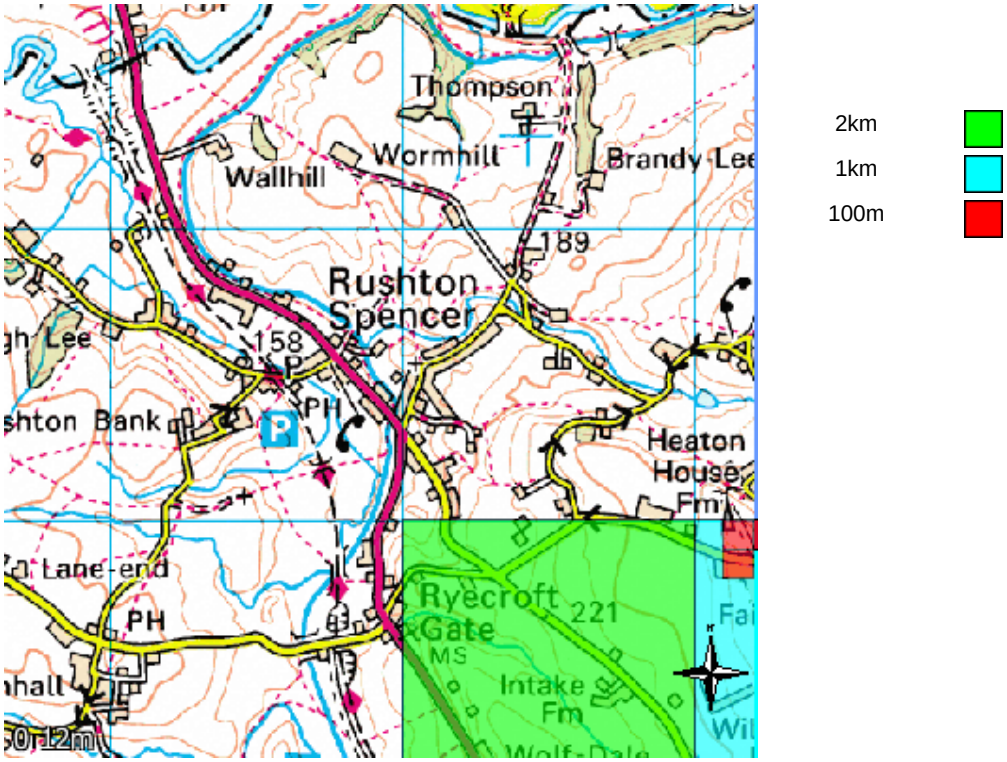
Important Bird Areas (England)
There are no features within your search area.

National Parks (England)

Name	Date of Confirmation Order	Hotlink
PEAK DISTRICT	Sun, 1 Apr 1951 00:00:00 UTC	HTTP://WWW.NATURALENGLAND.ORG.UK/OURWORK/CONSERVATION/DESIGNATEDAREAS/NATIONALPARKS/PEAKDISTRICT.ASPX

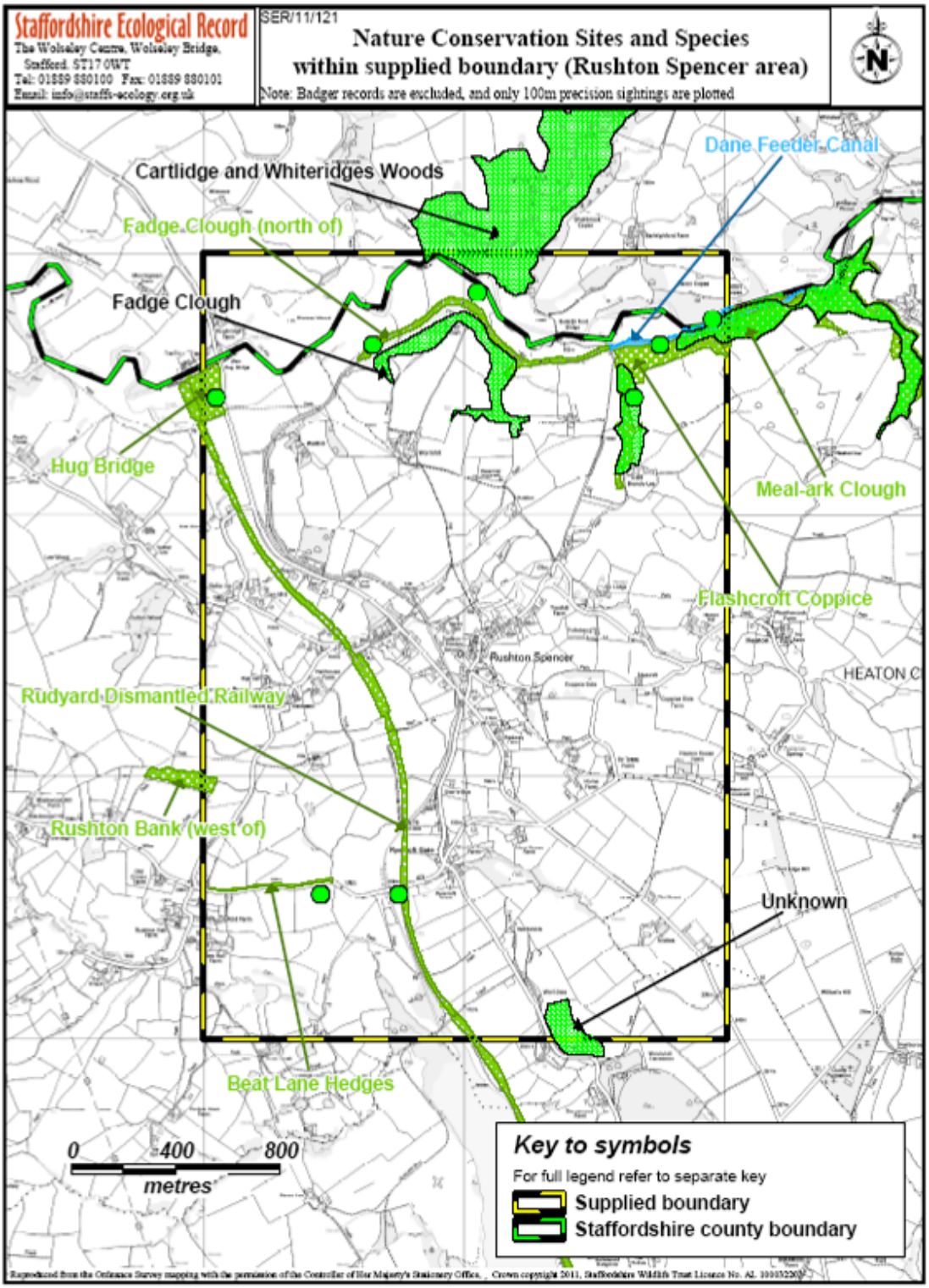
NBN Gateway

Great crested newt



Site name	Gridref	Date Recorded
Heaton, Gun Hill Quarry Pond	SJ951618	24/4/1983
Heaton, Gun Hill	SJ951619	1979
Heaton, Old Quarry	SJ951619	23/5/1976
HEATON GUN HILL	SJ951619	1979
HEATON	SJ952619	1988
HEATON GUN HILL QUARRY	SJ951618	1983

Staffordshire Ecological Record (SER)



Protected Species Information from SER:

Latin Name	Common Name	Location	Grid Ref	Date Recorded
Falco subbuteo	Eurasian Hobby	Rushton CP	SJ 93 62	2007
Fringilla montifringilla	Brambling	Rushton CP	SJ 93 62	2005
Fringilla montifringilla	Brambling	Rushton CP	SJ 93 62	2002
Fringilla montifringilla	Brambling	Rushton CP	SJ 93 62	2005
Fringilla montifringilla	Brambling	Rushton CP	SJ 93 62	2004
Fringilla montifringilla	Brambling	Rushton CP	SJ 93 62	2004
Fringilla montifringilla	Brambling	Rushton CP	SJ 93 62	2002
Turdus iliacus	Redwing	Rushton CP	SJ 93 62	2002
Turdus pilaris	Fieldfare	Rushton CP	SJ 93 62	2002
Chiroptera	a bat	Rushton CP	SJ 93 62	2002

Please note badger records have been omitted from the above table due to their confidential nature.

Appendix VI: Invasive Weed Information

Himalayan balsam

Himalayan or Indian balsam (*Impatiens glandulifera*) was introduced to Britain in 1839, but escaped from gardens and rapidly colonised riverbanks and areas of damp ground. Himalayan balsam grows in dense stands that suppress the growth of native grasses and other flora. In the autumn, the plants die back, leaving the banks bare of vegetation and vulnerable to erosion.

Facts and figures

Native range: Western Himalayas

Stem: Pink-red colour
Up to 3m tall - tallest annual plant in Britain
Hollow and jointed
Sappy and brittle

Leaves: Spear-shaped, with serrated edges
Shiny and dark green with a dark red midrib
Up to 150mm long
Opposite or in whorls of three

Flowers: Purplish-pink to pale pink
Slipper-shaped, on long stalks
June – October

Seeds: White, brown or black
Produced from July – October
4-7mm diameter
4 – 16 seeds per pod

Control: Control measures should aim to prevent flowering and if this is achieved before seeds are set, eradication is possible in two to three years.

Chemical control: can use glyphosate or 2, 4-D amine. Need to be used whilst plant is actively growing in early spring for best effect.

Cutting/mowing/strimming: cut at ground level using a scythe, before the flowering stage in June. Do not cut earlier as this promotes greater seed production in any plants that regrow. Cutting should be repeated annually until no more growth occurs.

Pulling: shallow-rooted plants can be pulled up very easily and disposed of by burning or composting, unless seeds are present.

Grazing: Grazing by cattle and sheep is effective from April throughout the growing season. It should be continued until no new growth occurs.