SF 2321 May 2015

Ecological Assessment
Land off Huthwaite Lane, Huthwaite near Thurgoland, South Yorkshire
Revision C (incorporating bat activity transect surveys)

Landscape Architects ■ Urban Designers ■ Ecologists ■ Horticulturists
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Revision A – 08/10/2014 – Local Bat & Badger Records included
Revision B – 16/03/2015 – LWS Citation information included
Revision C – 18/05/2015 – Bat Activity Transect survey information included

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1.0 INTRODUCTION

Smeeden Foreman Limited has been commissioned by Yorkshire Land Limited to undertake an ecological assessment of land off Huthwaite Lane, Huthwaite, near Thurgoland, South Yorkshire (grid reference SE 291001). This survey was undertaken on the 4th September 2014. Bat activity transect surveys were then carried out within April and May 2015. The proposals include the construction of four residential properties and an associated access road.

This report will include the following information gathered by desk study, an initial site walkover and a bat transect activity survey:

- Proximity to statutory and non-statutory designated sites.
- Proximity to existing records for protected species.
- Site habitat appraisal and potential to support protected species.
- The use of the site by foraging and commuting bats.

A review of the above information will be made to identify any features or sites of ecological interest which may be affected by the development proposals. Where potential impacts or protected species are identified the need for mitigation measures and specific species surveys will be discussed and recommendations for potential environmental enhancements will be made.

2.0 SITE DESCRIPTION

Figure 01: Aerial photograph showing the habitats within and immediately surrounding the site.

Habitats immediately beyond the site boundaries include an area of deciduous woodland and dense scrub to the south. Residential properties and associated gardens are adjacent to the west and eastern boundaries. Beyond Huthwaite Lane which aligns the northern boundary is a pasture field grazed by horses.

The site itself predominantly comprises areas of bare ground as the site has been subject to clearance to allow for a boundary and level survey. Tall ruderal and scrub species likely to have once dominated the site are beginning to become re-established. An area of grassland habitat occurs to the southern boundary. The site boundaries are predominantly marked by dry stone walls and fences, with a small section of hedgerow marking part of the western boundary.

3.0 BASELINE INFORMATION

3.1 Methodology

The ecological interest of the site has been investigated by a combination of desk study, consultation and field survey.

Information was requested from the following organisations:-
- Sheffield Biological Records Centre (SBRC)
- South Yorkshire Bat Group (SYBG

The following sources of information were consulted:-
- www.magic.gov.uk (government web sites for nature conservation and environmental information)
- Barnsley Biodiversity Action Plan
- Aerial photographs

3.2 Nature Conservation Designated Sites

Statutory designations
There are no statutorily designated sites such as Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Protection Areas (SPA), Special Areas of Conservation (SAC) or Ramsar sites within 2km of the proposed development site.

Wharncliffe Heath Local Nature Reserve (LNR) is located approximately 1.8km to the south of the site. The reserve comprises woodland and heathland habitat.

Non-statutory designations
Consultation with the Sheffield Biological Records Centre provided information on eight Local Wildlife Sites* within 2km of the proposed development site. These are detailed in the table below:

Site Name & Reference	Grid Reference	Site description	Approx distance from site
Black Moor Common	SE 276007	Site based on a south-eastern valley slope with the River Don flowing along its south-eastern edge. The site comprises a mosaic of acid grassland and dry heath. Colonising scrub and trees form dense thickets and developing woodland in some places. There are also bracken patches and some small marshy areas. Other habitats include bare ground, semi-improved grassland, tall ruderal herbs and mature trees. Important species recorded	1.4km to the north-west

		on site include priority UK BAP species such as linnet and yellowhammer and amber list species meadow pipit, curlew and kestrel.	
Mag Wood Meadow	SE 299012	An area of permeant grassland surrounded largely by dense woodland and scrub. The grassland is quite diverse and species-rich with the western area appearing to be unimproved, while the grassland to the east is semi-improved. Other habitats include marshy areas with some elements of acidic swards, bramble scrub, scattered scrub, tree growth, tall ruderal and bare ground. Important species on site include sessile oak, an indicator of ancient woodland in South Yorkshire.	1.1km to the north-east
Glow Worm Silkstone Common (Candidate site)	SE 294002	A disused railway line which forms part of the Trans-Pennine way and comprises semi-natural broadleaved woodland to the south and unimproved grassland with scattered trees and scrub to the north. Tall ruderal vegetation also occur within the site. Important species within the site include ancient woodland indicators such as sessile oak, greater stitchwort and bluebell. Glow worms are recorded annually on site, which is a locally scarce species.	0.2km to the north
Forge Rocher and Tin Mill Rocher	SK 291992	An ancient replanted woodland site based upon a steep bank with the River Don forming the eastern boundary. The majority of the woodland is broadleaved with the most abundant tree species including beech, sycamore and English oak. Other woodland habitat present includes plantation woodland comprising mixed and coniferous plantation, with a large area of rhododendron within proximity to this habitat. The woodland also includes standing water and swamp habitat which represent former mill ponds. Species found at the margins of the Don include Alder, meadowsweet, reed canary-grass, soft rush and the invasive Himalayan Balsam. Important species include ancient woodland indicator species such as bluebell, sessile oak, greater stitchwort, dog's mercury, wood sorrel, wood horsetail, great woodrush, remote sedge, yellow pimpernel and wood speedwell.	0.3km to the south
Wharncliffe Chase and Wood	SK 297984	The site comprises small pockets of broadleaved ancient woodland but mainly comprises conifer plantation overs areas classified as replanted ancient woodland. Other woodland habitat comprises broadleaved plantation. Other habitats within the site include running water, acidic grassland, marshy grassland, bracken, standing water and some heathland elements. Important species include ancient woodland indicator species such as woodmelick, bluebell, yellow pimpernel, pendulous sedge, broad-leaved helleborine, sessile oak, great woodrush, bush vetch, wood horsetail, wood sorrel, dog's mercury and yellow archangel. UKBAP bird species recorded breeding within the site including tree pipit, nightjar, lesser redpoll, cuckoo, yellowhammer, wood warbler, bullfinch and song thrush. The site also has probably the highest number of breeding woodcock in Barnsley. Adder and common lizard (both UKBAP) also recorded on site.	1.2km to the south-east
Hunshelf Bank	SK 280989	Site comprising unimproved dry acid grassland managed through grazing. Other habitats on site comprise a pond, wet flushes, rock outcrops and drystone walls, scrub, and a mature hedgerow. UKBAP and LBAP species recorded on site include western gorse, skylark and yellow hammer.	1.2km to the south
Lower Ewden Beck	SK 293984	The beck follows its original course with associated vegetation including woodland with ancient oakwood elements and planted areas. The site also comprises unimproved pasture. Important species recorded on site include red and roe deer and dipper.	1.5km to the south
Old Haywoods	SK 283983	Site based on a south facing slope with habitats comprising species-rich unimproved acidic and neutral grassland, scrub to semi-natural woodland and a pond. Forms part of a woodland corridor linking other Local Nature Sites and Woodland.	1.7km to the south
Lower Little Don, Stocksbridge	SK 276984	River corridor, mainly much modified by industrial development, but with riverside trees and heathland on brownfield sites, with areas of unimproved grassland on alluvial soils. Other sections of river are culverted. Important species include kingfisher and dipper.	1.8km to the south

* Local Wildlife Sites (LWS) are areas identified and selected locally for their wildlife value. The designation is non-statutory but is recognition of a site's significance with many sites being of county and often regional importance for wildlife. Examples range from field ponds, streams and reedbeds, to ancient woodlands, flower-rich meadows and hedgerows. This designation is equivalent to a SINC (Site of Importance for Nature Conservation). This designation is used by local authorities to allow the ecological value of a site to be considered within the planning system.

Refer to Appendix 01 which shows the locations of the designated sites in relation to the application site.

3.3 Existing Species Records

Protected species information including UK and European Protected Species was provided by Sheffield Biological Records Centre. These records are detailed in the table below, with approximate distances from the site.

Table 01: Records for Protected Species from SBRC within 2km

Species	Grid ref.	Notes
Grass snake (2007)	SK2999	1km grid square to the south of the site
Noctule (2008)	SE294003	0.3km to the north-east
Brown long-eared bat (1996)	SE281008	1.1km to the north-west
Soprano pipistrelle (1989)	SK2998	1km grid square to south
Merlin (1989)	SK2898	1km grid square to south
Kingfisher (1993)	SE269000	0.5km to the east
Fieldfare (2003)	SE290004	0.3km to the north-west
Redwing (2002)	SK286996	0.7km to the south-west
Brambling (2012)	SE288003	0.4km to the west
Whiskered bat (1987)	SE278006	1.3km to the north-west
Daubentons (1985)	SE 300009	0.9km to the north-east
Common pipistrelle (2010)	SE 294003	0.3km to the north-east
Unknown bat species (2000)	SE2901	1km grid square to the north
Natterer's bat (1988)	SE293001	0.2km to the east
Water vole (1980)	SK2999	1km grid square to the south of site

Badger have also been recorded within the 2km search area.

Table 2: Bat records from SYBG within 2km

Species	Grid ref.	Date	Notes
Whiskered bat	SE278006	27/09/1987	1.2km west
Common pipistrelle	SE270020	28/10/2012	2km north west
Brown long-eared bat	SE279008	19/05/2013	1.4km west
Daubenton's bat	SE279008	29/06/2013	1.4km west
Leisler's bat	SE278006	17/09/1987	1.4km west
Soprano pipistrelle	SE291007	17/08/2012	500m north
Noctule	SE304014	17/07/1992	2km north east

Badger
Consultation with South Yorkshire Badger Group found records of badger setts 800m to the west of the site within Huthwaite Wood and 900m to the north-west of the site within the vicinity of the Transpennine Trail. Badgers have also been recorded using gardens along Old Mill Lane within the vicinity of the site.

Records of UK BAP priority species provided within the consultation include common toad, white letter-hairstreak, grey partridge, lapwing, cuckoo, nightjar, wood warbler, spotted flycatcher, yellowhammer, house sparrow, tree sparrow, curlew, lesser redpoll, hedgehog, dingy skipper, wall, small heath, cinnabar, brown-spot pinion moth, knotgrass moth, brown hare, lesser spotted woodpecker, skylark, willow tit, song thrush, dunnock, starling, linnet and bullfinch.

3.4 Site Habitat Survey

A site survey was undertaken in September 2014. Habitat types and key species were noted and are presented in the Phase 1 Habitat format proposed by the Joint Nature Conservation Committee, 1993. The location and extent of the habitats are illustrated in Figure 02: Phase 1 Habitat Plan.

The dominant habitat within the site comprises bare ground with scrub and tall ruderal species becoming re-established. A small area of grassland occurs to the southern boundary. Boundaries are marked by dry stone walls, fences and a small length of hedge to the western boundary.

Bare ground
The site has recently been subject to clearance and therefore predominantly comprises bare ground (**Target note 1**). Scrub and tall ruderal species which would likely have previously dominated the site are beginning to become re-established. Species recorded include rosebay willowherb *Chamerion angustifolium,* foxglove *Digitalis purpurea,* redshank *Persicaria maculosa,* spear thistle *Cirsium vulgare,* broadleaved dock *Rumex obtusifolius,* bracken *Pteridium aquilinum,* meadow vetchling *Lathyrus pratensis,* cleavers *Galium aparine,* common nettle *Urtica dioica,* creeping thistle *C. arvense,* wavy bitter-crass *Cardamine flexuosa,* cow parsley *Anthriscus sylvestris,* prickly sow thistle *Sonchus asper,* creeping buttercup *Ranunculus repens,* hogweed *Heracleum sphondylium,* field forget-me-not *Myosotis arvensis,* dandelion *Taraxacum* agg., Yorkshire fog *Holcus lanatus,* groundsel *Senecio vulgaris,* common ragwort *S. jacobaea,* bittersweet *Solanum dulcamara,* dove's-foot crane's-bill *Geranium molle,* ground elder *Aegopodium podagraria* and hedge mustard *Sisymbrium officinale.* Re-developing scrub species identified include bramble *Rubus fruticosus* and blackthorn *Prunus spinosa.* Semi-mature scrub bushes which remain to the eastern boundary of the site include hawthorn *Crataegus monogyna* and elder *Sambucus nigra* with associated bramble and honeysuckle *Lonicera periclymen.* Towards the northern boundary of the site within the bare ground habitat is a pile of debris (**Target note 2**). This was created shortly after the site was procured and comprises timber, corrugated metal sheeting, carpet, etc.

Species-poor semi-improved grassland
To the southern boundary of the site is a small area of species-poor semi-improved grassland (**Target note 3**). This also appears to have been subject to a recent cut. The grassland is dominated by Yorkshire fog, with other species including rosebay willowherb, bramble, bush vetch *Vicia sepium,* foxglove, broadleaved willowherb *Epilobium montanum,* Himalayan balsam *Imaptiens glandulifera,* common nettle and spear thistle.

Hedgerow
A small section of hedgerow marks part of the western boundary (**Target note 4**). This hedgerow predominantly comprises introduced shrubs with dominant species including privet *Ligustrum ovalifoilum* and steeple bush *Spiraea sp.* Other species within the hedgerow include elder, bramble and ivy *Hedera helix*. Small amounts of Himalayan balsam were also recorded at the base of the hedgerow.

		
Target note 1 – Bare ground with re-establishing ruderals and scrub	Target note 2 – debris pile	Target note 3 – Area of grassland
		
Target note 4 – Hedgerow	Himalayan balsam at the base of hedgerow (TN4)	

3.5 Bat Activity Transect Surveys

Methodology
A total of three dusk activity surveys were undertaken on the 14th April, 6th May and 11th May 2015, however during the survey on 6th May weather conditions deteriorated and the survey was recorded as sub-optimal. Two surveyors were present for each survey undertaking two transects within the site which were concentrated to the boundaries, particularly to the south, where woodland habitat is outside of the site. Each surveyor was equipped with a Batbox Duet or Magenta Bat 4 detector. The surveys were carried out to the specification outlined within the Bat Conservation Trust's 'Bat Surveys: Good Practise Guidelines 2012'.

Results
The location of bat activity within the site boundaries are shown in Figure 03, with target notes corresponding to the textual report below.

Activity Survey 14th April
The first survey was conducted in suitable conditions (temperature ranging from 12°C to 14°C) with a light breeze and no rain. Sunset was recorded at 20:03, with the survey continuing until 22:03.

The first bats to be recorded were between 20:20 and 20:29. These were common pipistrelles seen commuting over the woodland habitat to the south of the site (**A**). The majority of bats were recorded at this southern boundary, with continuous feeding activity largely by common pipistrelle, with a smaller number of soprano pipistrelle also recorded. Activity was also recorded at the eastern, western and northern boundaries (**B, C, D** respectively), with bats seen to use the adjacent garden boundaries for commuting and foraging purposes, but to a lesser degree than the use of the southern boundary. At 20:34 a

common pipistrelle was recorded commuting within the southern section of the site, from the direction of the row of terraces outside the western boundary heading towards the woodland outside the southern boundary (**E**). This may indicate the presence of a bat roost within one of the terraces. Activity was recorded until 21:54, approximately 10 minutes prior to the end of the survey.

Activity Survey 11th May
The second survey was conducted in suitable conditions (temperature ranging from 11°C to 12°C) with a light breeze and no rain. Sunset was recorded at 20:53, with the survey continuing until 22:53.

The survey results obtained during this visit are similar to those recorded during the first visit, with the majority of activity being recorded along the southern boundary. The first bat was recorded at 21:13, this bat being a common pipistrelle commuting from the direction of the terraces outside the western boundary of the site heading to the woodland outside the southern boundary (**E**). Again, this potentially indicates the presence of a roost within one of the terraces. Species recorded during the survey were largely common and soprano pipistrelle, with a noctule recorded on two occasions. Noctule was heard at the south-western corner of the site (**F**) on both occasions but went unseen. A possible *Myotis* species was also recorded during the survey at 22:02. Bat activity was recorded until 22:35, approximately 20 minutes prior to the end of the survey.

3.6 Local Biodiversity Action Plan

Habitat types for which action plans have been prepared for the Barnsley Biodiversity Action Plan (BAP) include:

- Lowland mixed deciduous woodland
- Woodland and park-land
- Wet woodland
- Traditional orchards
- Upland heath
- Lowland heath
- Upland heath
- Lowland heath
- Lowland dry acid grassland
- Lowland meadow/neutral
- Floodplain grazing marsh
- Purple moor grass and rush pasture
- Arable field margins
- Hedgerows
- Rivers (and streams)
- Ponds (standing water)
- Reedbeds (swamps)
- Fens
- Blanket bog
- Purple moor grass and rush pasture

There are no habitats within the proposed development site which fall under the habitat types included within the local BAP. An area of woodland lies beyond the southern boundary of the site. This habitat will not be directly impacted upon by the proposed development. The hedgerow within the south-west corner of the site predominantly comprises non-native shrub species.

Species for which action plans have been prepared for the Barnsley Biodiversity Action Plan (BAP) include:

- Glow worm
- Dingy skipper
- White-clawed crayfish
- Bullhead
- Salmon
- Bittern
- Lapwing
- Little ringed plover
- Grey partridge
- Tree sparrow
- Skylark
- Barn owl
- Kestrel
- Twite
- Water vole
- Otter
- Bats
- Hedgehog
- Bluebell

Bat species may utilise the woodland edge beyond the southern boundary of the site for foraging and commuting purposes. Hedgehog may utilise the debris pile on site for refuge.

4.0 IMPLICATIONS / RECOMMENDATIONS

4.1 Nature Conservation Designated Sites

The non-statutory sites within closest proximity to the site include: Glow Worm Silkstone Common (approx 0.2km to the north) and Forge Rocher and Tim Mill Rocher (approx 0.3km to the south). These sites comprise a footpath with habitats of broadleaved woodland and unimproved grassland, and an area of ancient replanted woodland, respectively. As the application site does not consist of habitats which complement these designated sites, and infrastructure including roads and housing create a degree of severance, it is not considered that development of this site will have an adverse impact upon them. The applicant's proposed landscaping scheme which includes tree and native hedgerow planting will improve the connectivity between the two Local Wildlife Sites for certain species such as bats, birds and invertebrates.

Other statutory and non-statutory sites within 2km are located over 1km from the site and it is considered due to their distance from the site and the nature of the development that there will be no adverse impact upon them.

4.2 Habitats

The site is considered to hold limited value in terms of biodiversity largely comprising bare ground habitat which is beginning to become re-colonised with common scrub and tall ruderal species. The hedge to the western boundary largely consists of non-native species though may be of value to nesting birds. As this hedge adjoins properties to the west of the site, it is considered likely that it will be retained.

Small amounts of Himalayan balsam were recorded to the southern and western boundaries. This species is a non-native invasive included under Schedule 9 of the Wildlife and Countryside Act 1981 which should not be planted or otherwise caused to grow in the wild. This plant should therefore be treated/removed from site as part of the proposed development work. Consideration could be given to undertaking control treatment prior to the commencement of work to avoid any potential delays/minimise costs.

The woodland habitat beyond the southern boundary is likely to be of value to wildlife, such as foraging and nesting birds and foraging and commuting bats. The Landscape Proposals indicate that a buffer edge of native tree and shrub planting will be included along the southern boundary of the application site to minimise any indirect impacts, i.e. from lighting, noise, etc. Species recommended within the landscaping include silver birch *Betula pendula,* rowan *Sorbus aucuparia* and wild cherry *Prunus avium*, with a hornbeam *Carpinus betulus* hedge. Such species will also be planted throughout the site, this is shown on the Landscape Details Plan, which forms part of the planning application, with the objective of enhancing site biodiversity. It is recommended that protective fencing, such as Heras fencing should be installed along the southern boundary prior to the commencement of construction works to ensure no encroachment into the adjacent woodland habitat and to prevent the storage of construction materials and plant within this habitat.

Proposed Landscaping is shown on Landscape Details Plan number R/1638/1 which forms part of the planning application

4.3 Species

Refer to Appendix 02, which details the legal status of the species mentioned below.

Great Crested Newts
There is no standing water habitat within the site to support breeding amphibians. Terrestrial habitats currently within the site are largely of limited value for amphibians also, with bare ground offering limited opportunities for foraging and cover. The hedgerow to the south-western corner of the site and the debris pile to the north of the site do, however, offer some opportunities for amphibians during their terrestrial phase. When consulting an OS base of the surrounding area, standing water habitat within 500m of the site is located on the opposite side of the River Don to the south of the site. The river is likely to be a dispersal barrier to newts if present within these ponds and therefore reduced the likelihood of great crested newts using the habitats within the site. Consultation undertaken with the local record centre provided no records of great crested newts within 2km of the site. No adverse impact upon great crested newts is therefore anticipated as a result of the development and no further survey for this species is considered necessary.

Bat species
The bat activity transect surveys found the southern boundary of the site to be used by foraging and commuting bats, particularly common and soprano pipistrelles. The eastern, western and northern boundaries of the site were only occasionally found to be used by bats. The surveys recorded bats heading from the direction of the row of terraces outside the site to the western boundary, suggesting the potential presence of a bat roost within one of the terraces.

To avoid impacts upon bats which utilise the site for foraging and commuting the Landscape Details Plan indicates that a buffer of native tree and shrub planting will be provided along the southern boundary of the site where possible to ensure indirect impacts such as lighting and noise, is reduced and that bats occurring within the surrounding area continue to utilise this

habitat. It is recommended that proposed external lighting specified on the proposed dwellings is close offset accent lighting as this causes less light pollution. This type of lighting is more specific and can be designed to avoid bat sensitive areas, and better highlights the features of the subject of illumination. Low wattage lamps are preferable (<70W or LED equivalent) as they minimise impacts on bats. These lights would ideally be fitted with movement sensors so the lights will be illuminated only when needed reducing the amount of time lit. This information has been taken from the document Bats and Lighting: Overview of current evidence and mitigation (Stone, E.L., 2013) in regards to recommended types of security lighting. Such lights should be used for dwellings located to the south of the site and the single dwelling proposed to the north of the site in order to avoid illumination of the southern boundary and the row of terraces outside the western boundary where a potential bat roost may be present.

There are no buildings or trees within the site and therefore there will be no adverse impact upon roosting bats.

Badgers

No signs of badger were noted within the site when undertaking the survey. The walkover survey was extended into the woodland beyond the southern boundary of the site and no sign of badger was noted within this habitat. Consultation undertaken with the local record centre provided records of badger within the vicinity of the site and due to suitable habitat being within close proximity it is considered that badger may access the site for foraging and commuting purposes. It is therefore recommended that precautionary working methods are adopted during works to avoid accidental harm to badgers. This would include covering or providing a means of escape to any open trenches and capping any open pipework at the end of each working day.

Breeding birds

Habitats within the site are considered to offer limited opportunities for breeding birds, with only small amounts of scrub, etc. The hedge to the south-western corner of the site may be utilised by nesting birds. As this marks the boundaries of adjoining residential gardens it is considered likely that it will be retained. Any vegetation clearance to take place, including scrub bushes to the eastern boundary and the hedgerow to the south-west will be undertaken outwith the nesting bird period (March – August inclusive) unless checks by an appropriately qualified ecologist find no active nests immediately prior to clearance works commencing.

Reptiles

Consultation undertaken with the local record centre provided records of grass snake within 2km of the site. It is considered that the site is largely sub-optimal for reptile species, largely comprising bare ground habitat with limited areas of cover. Features within the site such as the debris pile to the north, provide potential refuge areas for such species. To avoid adverse impact upon reptiles, prior to construction works it is recommended that the debris pile is dismantled by hand and that site clearance works are directional, heading to the southern boundary so that if reptile species are present they can retreat to unaffected habitats outwith the site. Dismantling the debris pile by hand should also be carried out in the interest of hedgehogs.

Other species

Habitats within and immediately adjacent to the site are considered unsuitable to support protected species such as water vole, otter and white-clawed crayfish. No adverse impact upon these species is anticipated within the proposals.

5.0 SUMMARY

Smeeden Foreman Limited has been commissioned by Yorkshire Land Limited to undertake an ecological assessment of land off Huthwaite Lane, Huthwaite near Thurgoland in South Yorkshire. A habitat survey using the standard Phase 1 methodology was carried out, as well as an assessment of potential for protected species. Consultation has been undertaken with the relevant local record centre and organisations. The survey was undertaken in September 2014. Bat activity transect surveys were then carried out within April and May 2015.

Designated Sites
Statutory and non-statutory nature conservation sites located within 2km are considered to be at a sufficient distance so that no adverse impact upon them is anticipated as a result of the proposed development.

Habitats
The site is considered to hold limited value in terms of biodiversity largely comprising bare ground habitat which is beginning to become re-colonised with common scrub and tall ruderal species. The hedge to the western boundary largely consists of non-native species though may be of value to nesting birds. As this hedge adjoins properties to the west of the site, it is considered likely that it will be retained.

Small amounts of Himalayan balsam were recorded to the southern and western boundaries. This species is a non-native invasive included under Schedule 9 of the Wildlife and Countryside Act 1981 which should not be planted or otherwise caused to grow in the wild. This plant should therefore be treated/removed from site as part of the proposed development work. Consideration could be given to undertaking control treatment prior to the commencement of work to avoid any potential delays/minimise costs.

The woodland habitat beyond the southern boundary of the application site is likely to be of value to wildlife, such as foraging and nesting birds and foraging and commuting bats. The Landscape Details Plan, which forms part of the Planning Application, indicates that a buffer of native tree and shrub planting will be provided along the southern boundary to minimise any indirect impacts, i.e. from lighting, noise, etc. Planting to the western and eastern boundaries has also been proposed, with the objective of enhancing site biodiversity. It is recommended that temporary protective fencing, such as Heras fencing should be installed along the southern boundary prior to the commencement of construction works to ensure no encroachment into the adjacent woodland habitat and to prevent the storage of construction materials and plant within this habitat.

Proposed Landscaping is shown on Landscape Details Plan number R/1638/1 which forms part of the planning application.

Protected Species
- **Great crested newts –** No adverse impact upon this species is anticipated.
- **Bats –** Planting to the southern boundary has been proposed (as shown in the Landscape Details Plan) and it is also recommended that low wattage lighting be utilised outdoors wherever possible to avoid impacting upon bats which use the southern boundary for foraging and commuting and a potential bat roost within terraces outside the site to the western boundary. Refer to section 4.3 of the report for further details.
- **Badger –** Precautionary working methods are recommended in terms of badgers to avoid potential harm/killing of such species.
- **Breeding birds –** Vegetation clearance works should be undertaken outside the breeding bird period (March – August inclusive) unless checks by an appropriately qualified ecologist have found active nests to be absent immediately prior to clearance

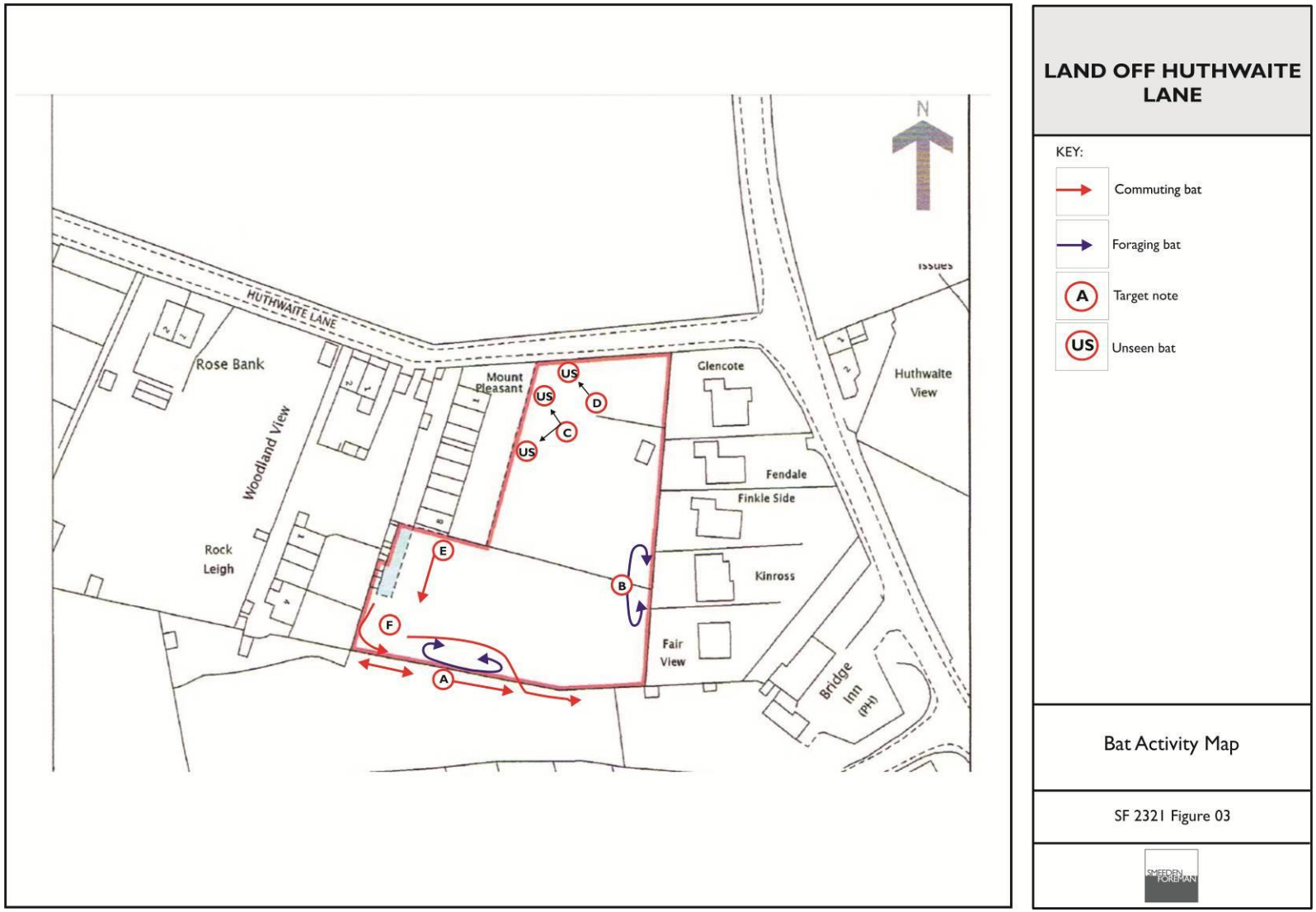
works commencing. Enhancement recommendations for breeding birds include the planting of native trees and shrubs.

- **Reptiles –** Directional clearance and dismantling debris piles within the site by hand is recommended prior to the commencement of construction works to avoid potential harm to reptile species. Dismantling debris piles by hand should also be carried out in the interest of hedgehogs.

Refer to section 4.3 for further details regarding the protected species assessment.

FIGURE 02: PHASE 1 HABITAT PLAN

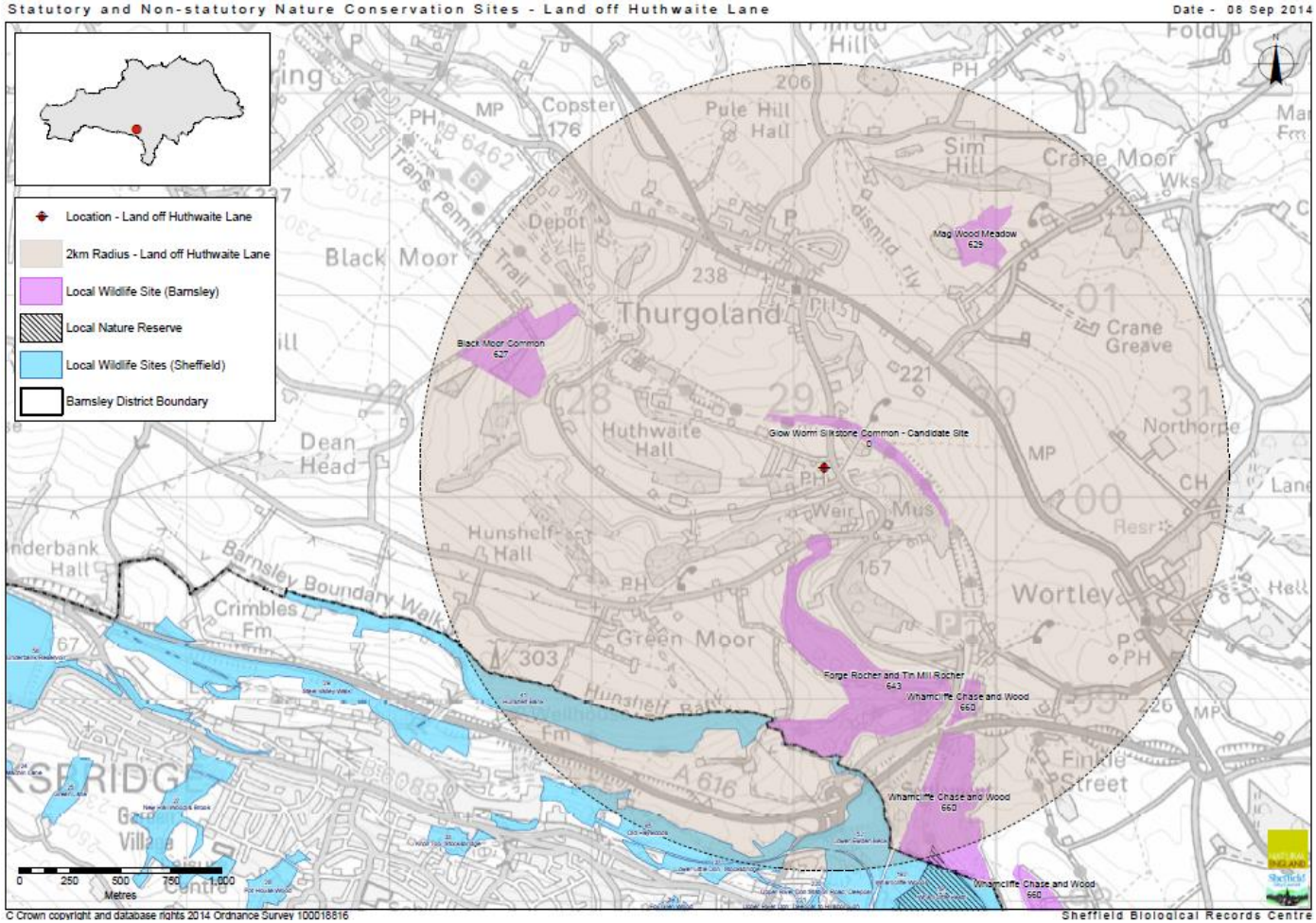
FIGURE 03: BAT ACTIVITY MAP



APPENDICES

APPENDIX 01: Statutory & non-statutory sites
APPENDIX 02: Legal Status of Protected Species

APPENDIX 01:
NON-STATUTORY SITES



APPENDIX 02:
LEGAL STATUS OF PROTECTED SPECIES

Great Crested Newt

The Wildlife and Countryside Act 1981 (as amended) transposes into UK law and the Convention on the Conservation of European and Wildlife and Natural Habitats (commonly referred to as the 'Bern Convention'). The 1981 Act was amended by the Countryside and Rights of Way ['CRoW"] Act 2000. The great crested newt is listed on Schedule 5 of the 1981 Act, and is therefore subject to the provisions of Section 9, which make it an offence to:

- Intentionally kill, injure of take a great crested newt [Section 9 (1)]
- Possess or control any live or dead specimen or anything derived from a great crested newt [Section 9 (2)]
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt [Section 9 (4)(a)]
- Intentionally or recklessly disturb a great crested newt while it is occupying a structure or place which it uses for that purpose [Section 9(4)(b)]

The Conservation (Natural Habitats &c.) Regulations 1994 (the Habitats Regulations) transpose into the UK law Council Directive 92/43/EEC of 21st May 1992 on the conservation of Natural Habitats and of Wild Fauna and Flora (often referred to as the 'Habitats [and Species] Directive'). The great crested newt is listed on Annex II and Annex IV of the Directive. The former Annex relates to the designation of Special Areas of Conservation (SACs) for this species; even where great crested newts occur outside SACs, the inclusion on Annex II serves to underline their conservation significance. Inclusion of the Annex IV ('European Protected Species') means that member states are required to put in place a system of strict protection as outlined in Article 12, and this is done through inclusion on Schedule 2 of the Regulations. Regulation 39 makes it an offence to:

- Deliberately capture or kill a great crested newt [Regulation 39 (1)(a)]
- Deliberately disturb a great crested newt [Regulation 39(1)(b)]
- Deliberately take or destroy the eggs of a great crested newt [Regulation 39 (1)(c)]
- Damage or destroy a breeding site or resting place of a great crested newt [Regulation 39(1)(d)]

The legislation applies to all life stages of great crested newts.

Bats

Bats and their roosts are afforded full legal protection under both UK and European legislation. The Conservation (Natural Habitats & c.) Regulations 1994 (as amended, 2007) transpose the Habitats Directive into UK law, making it an offence to-

- deliberately disturb a bat
- deliberately kill, injure or capture a bat
- damage, destroy or obstruct access to a breeding site or resting place (note this applies to both deliberate and reckless actions).

The Wildlife and Countryside Act 1981 (as amended) (Schedule 5) made it an offence to

- intentionally kill, injure or take a bat
- damage, destroy or obstruct a bat roost *,
- disturb a bat at a roost *
- possess or control a bat or any part thereof
- sell, offer for sale, possess or transport for sale any bat or part thereof
- set traps for catching, killing or injuring bats
- possess articles for the purposes of committing offences against bats

[*= intentional and reckless offences covered]

This protection applies whether bats are present within the roost at the time or not.

Badgers
Badgers and their setts are protected by the Protection of Badgers Act 1992. Under this act it is illegal to: (1) wilfully kill, injure, take a badger or attempt to do so, (2) cruelly ill-treat a badger or (3) interfere with a sett, including disturbing a badger while occupying a sett.

Breeding Birds
The Wildlife and Countryside Act 1981 (as amended) gives protection to all wild nesting birds, which makes it an offence to intentionally kill, injure, or take any wild bird or their eggs or nests. This protection applies from the moment the nest is being built. Additional protection against disturbance on the nest or of dependant young is provided for birds included on Schedule 1.

Reptiles
The Wildlife and Countryside Act 1981 makes it an offence to intentionally kill any of our native snakes and lizards. The sand lizard and smooth snake receive additional protection; for these species, it is unlawful to capture or possess them, or to damage/obstruct access to places they use for shelter or protection, or to disturb them whilst in such a place.