Darley House, Pantry Hill, Worsbrough Dale

Preliminary Ecological Appraisal

21st August 2017

Prepared by:

Middleton Ecological Consultancy, 33 Wilthorpe Road, Barnsley S75 1JA

Document ref : MEC/PEA/2017/15/1				
Purpose and Description	Originated	Checked	Reviewed	Date
For Planning	P Middleton MCIEEM	R Bell MCIEEM	P Middleton MCIEEM	21/08/17

Site Name Darley House	**Location** Pantry Hill, Worsbrough Dale, Barnsley S70 4RP
Document ref: MEC/PEA/2017/15/01	
Local Authority Barnsley Metropolitan Borough Council	**Grid Reference** SE 36252 04049
Surveyor Peter Middleton MCIEEM	**Date of Survey** 27/07/2017
Geology/soil type Coal Measures	**Designation of Site** None

Phase 1 Habitat Types on Site C3.1 Tall ruderal, B6 Poor semi improved grassland, A2.1 & 2.2 Scrub, A3.1 Scattered trees, J3.6 Buildings, J2 Boundaries, J4 Bare ground, G2 Running water, J5 Other
NVC Communities on Site MG1, W24
Protected/Notable Species, Constraints on Site Nesting birds, *Cotoneaster horizontalis*, *C. Simonsii*, foraging bats
HPIs and SPIs under NERC Act 2006 None
Barnsley BAP None

Contents

1. Summary

1.1.1 The preliminary ecological appraisal of the site at Darley House, Pantry Hill, Worsbrough Dale was commissioned by architect Mark Booth on behalf of the client Mr Bill Borgia on 26th July 2017. The survey was commissioned to inform a planning application for a small residential development of nine dwellings.

1.1.2 No habitats or species group on site are considered to be of more than site level importance to nature conservation.

1.1.3 Nocturnal bat surveys were undertaken on a dwelling considered to display moderate bat roost potential. No bats were found to be roosting in the building.

1.1.4 The following ecological constraints and associated recommendations to avoid/mitigate/compensate for potential impacts have been identified, no further survey work is considered necessary:

- **Bats** – Increase in night-time lighting from security lights which has the potential to negatively affect foraging bats. Avoid lighting impacts through sensitive lighting design.
- **Trees** – Retention of some trees and protection through tree protection measures in accordance with BS5837:2012. Fell trees displaying low bat roost potential during the winter period and leave wood in-situ for 24 hours prior to removal.
- **Invasive flora** (presence of *Cotoneaster horizontalis and C. simonsii* on site) – Avoid spread through development of a plan to control the species during construction works.
- **Nesting birds** (Nesting opportunities across site) – Clearance of habitats outside nesting season or checks by an Ecological Clerk of Works (ECoW)
- **Pot-well/Stream** – Potential pollution incident affecting the pot well and stream. It is recommended that best construction practice and environmental management measures are followed.

1.1.5 In addition to mitigation recommendations outlined above enhancement recommendations provided include:

- In-situ cavity boxes and house sparrow boxes integral to the fabric of the buildings.
- New tree and shrub plantings of locally native standard species of trees and shrubs.
- Boundaries and fences that will not impede the free movement of hedgehogs throughout the site.

1.1.6 Providing the mitigation recommendations detailed in the report are adopted then no ecological impacts of greater than site level importance are envisaged as a result of the proposed development.

2. Introduction

2.1.1 This preliminary ecological site appraisal was commissioned by architect Mark Booth on 26th July 2017 on behalf of the client Mr Bill Borgia. The site is subject to a planning application for a residential development of nine dwellings.

2.1.2 The purpose of this report is to present the results of an extended Phase 1 habitat survey which includes determining the potential for, or presence of, protected and notable species, plus an appended map of the site showing the Phase 1 habitats present. Some sites require subsequent targeted species surveys but in many cases the preliminary ecological appraisal is sufficient to accompany the planning application. Therefore, recommendations in relation to avoiding, mitigating and compensating for ecological impacts are included in this report together with biodiversity enhancement recommendations.

2.1.3 Key legislation relating to designated sites and protected species and habitats is detailed in Appendix 3. The implications of legislation are detailed in the body of the report where necessary.

3. Site Description

3.1.1 The site comprises Darley House and associated land. The largely rectangular shaped plot is on a gentle slope running from north to south and is surrounded on three sides by residential development and associated gardens. In addition to the large Georgian dwelling and Victorian extensions, there is a former stable which have been converted to residential. Habitats present on site include poor semi improved grassland, scattered trees, tall ruderal vegetation and dense and scattered scrub.

3.1.2 Land adjacent to the application site supports the following habitats.

- Mature trees
- Residential gardens and allotment gardens
- Hard surface (roads)

3.1.3 The surrounding area is predominantly residential (see Figure 1). The site falls within Natural Area 24 Coal Measures which is characterised by dense populations centred on a number of towns and cities that developed largely as a result of the underlying coal fields. The topography of the Natural Area is gently undulating and the network of towns and cities is characterised by a matrix of acidic ancient and secondary woodlands, valley wetlands, neutral and acid grasslands, and mixed agriculture. Canals, mill-ponds and natural rivers are also important features.

Figure 1. Site location

4. Methodology

4.1 Data Consultation

4.1.1 Barnsley Biological Records Centre (BBRC) were contacted to request the following information for locations within a 1.5km radius of the site:

- Protected and notable species records
- The boundaries of non-statutory designated sites of nature conservation interest

4.1.2 A search of the Multi-Agency Geographical Information for the Countryside (MAGIC) website was undertaken to determine the following:

- The boundaries of statutory designated sites of nature conservation interest
- The locations of historic European Protected Species (EPS) licences granted by Natural England

4.2 Field Survey

4.2.1 The site was surveyed on 27th July 2017 using extended Phase 1 habitat survey methodology (JNCC, 2010) by the following personnel:

- Peter Middleton (MCIEEM)

4.2.2 Notable, rare or scarce plant species were highlighted if present. Evidence of protected species or species of nature conservation importance was recorded where present at the time of survey. Species recorded are included within the report as appropriate. Information is presented on the Phase 1 plan, using Target Notes (TN) to identify particular features of interest, where appropriate. Additionally, and where

possible, habitats were classified using the National Vegetation Classification (NVC), as described in the JNCC National Vegetation Classification – Users Handbook (Rodwell, 2006).

4.2.3 Ariel photographs (Google Earth) were studied to place the site in its wider context and to look for ecological features that would not be evident on the ground during the walkover survey. This is particularly useful for identifying wildlife corridors and ponds but because the latter are often not apparent on aerial photographs, OS 1:25 000 scale maps are also used.

4.2.4 Habitats of Principal Importance (HPIs) and Species of Principal Importance (SPIs) are included on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 were noted together with priority species and habitats as included on the Local Biodiversity Action Plan (LBAP).

4.2.5 The value and sensitivity of ecological features present on site were determined based on the guidance given in 'Guidelines on Ecological Impact Assessment' (CIEEM, 2016). Individual ecological receptors (habitats and species that could be affected by the development) for the scheme were assigned levels of importance for nature conservation. The highest level is international, then decreasing in order of importance through national, regional, county, local and lastly site.

4.2.6 Bat surveys following Bat Survey Good Practice Guidelines (Collins 2016) were undertaken. The surveys included an initial assessment of two buildings plus the site's trees for their potential to support roosting bats, undertaken by Peter Middleton (Class license WML-A34-Level 4, 2017-27977-CLS-CLS on the 27th July 2017. The initial inspection was followed by two subsequent nocturnal surveys on one building, comprising a dusk emergence survey undertaken by Peter Middleton, Carl Dixon and Jeff Wragg on 31st July 2017 and a dawn return survey undertaken by Peter Middleton and Carl Dixon on 21st August 2017. The personnel were positioned so that all of the building could be monitored for bat activity (see Figure 2) and were equipped with Wildlife Acoustics EM Touch bat detectors.

4.3 Survey Limitations

4.3.1 No significant limitations were identified. However, flora and fauna surveys are a snap-shot in time and therefore it is inevitable that some species will remain unrecorded.

5. Results

5.1 Data Consultation

Designated sites present within 1.5km of the site are detailed in Table 1.

Table 1. Local sites designated for nature conservation

Designation	Name	Interest	Distance and direction to site
LNR	Worsbrough Country Park	Open water, reed beds, woodland and meadows	500m south
Local Wildlife Site (LWS)	Wombwell Wood	Ancient semi-natural broadleaf woodland	1km southeast

Designation	Name	Interest	Distance and direction to site
LWS	Barrow Colliery Site	Lowland heath, grassland and woodland	575m south
LWS	Worsbrough Reservoir	Open water, reed beds and wet woodland	1.45km west southwest

5.1.1 No impacts are anticipated upon the designated sites because of their distance from the application site.

5.1.2 Records of protected and notable species obtained are discussed in the species sections of the results.

5.1.3 No EPS mitigation licences have been obtained for locations within 2km of the application site.

5.2 Field Survey

5.2.1 The arrangement of site habitats is shown on the Phase 1 plan in Appendix 1, whilst a filtered species list to show amphibians, reptiles and terrestrial mammal records is provided in Appendix 5

5.2.2 All site habitats are considered to be of site level importance to nature conservation. The site is not considered to be of greater than site level importance to any species group.

5.2.3 A detailed description of the site habitats and the site's potential to support protected and notable species is provided below.

Habitats

Plate 1. Grassland with tall ruderal in distance, scattered trees and leylandii hedge

B6 Poor semi-Improved grassland

5.2.4 The former lawn area has been neglected and has reverted to a species poor grassland of the National Vegetation Community (NVC) MG1 containing abundant false oat-grass *Arrhenatherum elatius* and Yorkshire fog *Hocus lanatus* together with frequent cock'sfoot *Dactylis glomerata*, creeping bent *Agrostis stolonifera* and red fescue *festuca rubra*. Herbs are poorly represented and include white clover *Trifolium repens*, creeping buttercup *Ranunculus repens* and bulbous buttercup *Ranunculus bulbosus*.

C3.1 Tall ruderal

5.2.5 Tall ruderal vegetation with abundant nettle *Urtica dioi*ca, thistles *Cirsium* spp. and frequent broad leaved dock *Rumex obtusifolius* and great willowherb *Epilobium hirsutum* covers a large proportion of the site (see Plates 1 & 2). At the time of the visit some of this habitat was being cleared.

Plate 2. Poor semi-improved grass in foreground and mature trees behind hedge

A3.1 Scattered trees

5.2.6 The trees on site could be classified as either scattered trees or woodland but for want of a better category, they have been given the phase 1 habitat name of scattered trees. Species present include three ash *Fraxinus excelsior* a copper beech *Fagus sylvatica*, a weeping willow *Salix chrysocoma*, whitebeam *Sorbus aria*, silver birch *Betula pendula* and several wild cherries *Prunus avium* (see Plates 2 & 3). All are somewhat mature.

A2.1 & 2 Scattered and continuous scrub

5.2.7 At the southern end of the side under and around trees are areas of bramble *Rubus fruticosus* scrub together with other scattered self-set trees. Species present include elder *Sambucus nigra*, wild cherry and aucuba *Aucuba japonica*.

G2 Running water

5.2.8 At the lowest point of the site near the southern boundary is a pot-well and small spring approximately seven metres in length. Below the pot-well the running water is barely a trickle.

Plate 3. Scattered trees and scrub in southwest corner of the site

J2 Boundaries

5.2.9 There is a large Leyland cypress hedge along the southern boundary and adjacent to the access track. The west and north boundaries have stone walls and there are also two retaining walls (see Plates 4 & 6).

J3.6 Buildings

5.2.10 There are two stone built dwellings on site (see Plate 4). The buildings are discussed in more detail in relation to their potential to support bats within the Species section of the report.

Plate 4. Large Georgian building (left) with Victorian extension (centre) and detached renovated stable (right)

J4 Bare ground

5.2.11 Bare ground is present and includes the access and driveway to the two occupied dwellings and land at the rear of the site.

J5 Other

5.2.12 The private garden area of the converted stable dwelling plus the front driveway to Darley House contains a mix of habitats including introduce shrub, ephemeral/short perennial, bare ground and grass.

Plate 5. Habitat J5 comprising a mosaic of bare ground ephemeral, tall ruderal and scrub

Species

Amphibians

5.2.13 No Great Crested Newt (GCN) *Triturus cristatus* records were provided by BBRC for a location within 1.5 kilometres of the application site.

5.2.14 There appears to be no ponds within 500m of the site and the surrounding area is suburban. In addition the on-site spring is not considered suitable habitat for breeding GCN. Consequently GCN are not considered likely to be a receptor to the proposed scheme.

5.2.15 Common amphibian species may use the site for foraging however it is not clear where they could breed locally.

Badger

5.2.16 A single badger record was provided by BBRC for a location within 1.5 kilometres of the application site. The record is of a badger latrine found in a culvert more than one kilometre from the site.

5.2.17 The application site and its environs were searched for any signs of badgers but none were found. No setts are currently present on site however the site may be used as

part of wider badger foraging areas.

Birds

5.2.18 No bird species included as Species of Principal Importance (SPI) on the NERC Act 2006 or Red Listed on the Birds of Conservation Concern (Eaton *et al.,* 2015) were recorded during the field survey however the site has potential to support song thrush *Turdus philomelos* and house sparrow *Passer domesticus,* which are present in the wider area.

5.2.19 A small assemblage of common resident birds were recorded on site including: robin *Erithacus rubecula,* blackbird *Turdus merula* and wren *Troglodytes troglodytes*. The list is not exhaustive and several other common resident birds and summer migrants are likely to inhabit the site.

5.2.20 Trees and scrub on site have potential to be used by a range of species for nesting.

Reptiles

5.2.21 Nineteen reptile records were provided by BBRC for locations within 1.5km of the application site. The nearest record of a grass snake *Natrix natrix* is 570m south of the application site on the Trans Pennine Trail. There are also three adder *Lutra lutra* records from Barrow LWS.

5.2.22 Whilst there is perhaps suitable reptile foraging habitat on site, it is largely surrounded by the built environment and therefore there is little connectivity with suitable habitat elsewhere. Further survey work is not considered justified given the low likelihood of presence.

Water vole

5.2.23 All water vole *Arvicola amphibius* records provided by BBRC were in excess of one kilometre and all are for dates prior to 2000.

5.2.24 The tiny stream on site is a barely a trickle of water and only seven metres in length therefore it is considered unlikely to support water vole. No signs of water vole were found.

Invasive species

5.2.25 There are several Cotoneaster species on site at various locations including *Cotoneaster horizontalis* and *C. simonsii*. Both Cotoneaster species are included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and consequently it is an offence to plant or otherwise cause these plant species to grow in the wild.

Bats

Data consultation

5.2.26 46 bat records were provided by BBRC for a 1.5km radius of the application site. The nearest known bat roost is at the Red Lion public house 1.3km south of the site. Both common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus* have roosted at this site in the past but there are no recent records.

Field surveys

5.2.27 Two dwellings, occupy the application site, a restored and converted former stables which is not subject to any subsequent works, and a large Georgian Villa with Victorian extensions. A description of the latter and its potential to support roosting bats is described below. No further description of the former stables is provided given that they will not be impacted by the proposed scheme.

Description of building

5.2.28 The large detached stone built two storey Georgian dwelling is on a north-northeast south-southwest orientation in a residential area of Worsbrough Dale. The building is built of stone with a pitched concrete tiled roof containing a ridge and hips. The large extension on the east side of the original building has a separate Welsh slate pitched roof with ridge and hips. At the rear of the building (NNE elevation) is a two storey extending wing with a mono pitched roof (see Plates 5, 6 & 7).

Habitat assessment

5.2.29 Whilst Darley House is located in the conurbation of Worsbrough Dale, the wider area supports an abundance of high quality bat foraging habitats. However, all areas of higher quality foraging habitat are in excess of 300m from the site and therefore the range of bat species using the site is not expected to be great.

Internal inspection of building

5.2.30 The loft-space of the Georgian section of the building has king-post roof timbers and the entire space was found to be extremely 'cobwebby'. It has 100mm of glass fibre insulation at ceiling height and there is bitumen hessian Type 1F felt beneath the tiles. The loft-space is partly boarded for storage which facilitated the search for signs of bats, but none were found. The Victorian extension has the timbers of a former roof within the space with the existing roof having been constructed above. All but the east side of the roof has bitumen hessian Type 1F felt beneath the slates and again the space is boarded for storage. No glass fibre insulation was visible and the entire roof-space was laden with 'cobwebbs'. No signs of bats were found.

Plate 6. South elevation of Georgian house with Victorian extension

External inspection of building

5.2.31 The masonry of the building has been relatively well maintained and consequently,

there are few gaps in mortar joints. There is however potential access to the wall top and wall plate behind the gutters on all sections of the building. The concrete tile roof section has gaps in mortar at the verges of the north wing (see Plate 7) and there are several other features upon the roof including uneven slates.

5.2.32 The surveyed building displays a moderate number and diversity of potential roost features and therefore it was assessed as having moderate bat roost potential.

5.2.33 No trees on site have features with more than low potential to accommodate bats. Two ash trees have ivy cover and a whitebeam and one of the ash trees have shallow knot holes. No further survey of trees with low bat roost potential is advised in the acceptable bat survey guidelines (Collins, 2016).

Plate 7. North elevation showing north wings

Nocturnal surveys

31st July 2017 – dusk emergence survey

5.2.34 Sunset was at 21:04 and the temperature at the beginning of monitoring was 16°C, with a Beaufort Scale Force 1 south westerly wind and 80% cloud. The conditions remained the same throughout.

5.2.35 The first bat recorded was a soprano pipistrelle *Pipistrellus pygmaeus* at 21:24 behind the surveyor on the north side of the building. Intermittent foraging by single common pipistrelles and soprano pipistrelles were record thereafter on all sides of the building. Several noctule passes were recorded together with a *Myotis* spp. pass at 22:10 (66 minutes after sunset). No bats were seen to emerge from the surveyed building.

21st August 2017 – dawn return survey

5.2.36 Sunrise was at 05:56 and the temperature at the beginning of monitoring was 11°C, with no wind and a clear sky. The conditions remained the same throughout.

5.2.37 The first bat recorded was a common pipistrelle at 05:01 behind the surveyor on the north side of the building. There was another five passes by common pipistrelle at that side of the building with the last at 05:43. A Leisler's bat *Nyctalus leisleri* and a noctule were heard at 05:14 and 05:36 respectively. No bats were seen to return to the surveyed building.

5.2.38 The surveys are considered to be an accurate account of the status of bats at the site.

Figure 2. Surveyor locations, as indicated by red circles (dusk survey) or blue circles (dawn survey)

6. Assessment

6.1 Proposals

6.1.1 The proposal development comprises the construction of a small residential development of nine dwellings. The pot-well will not be impacted upon, the existing Georgian building will be retained but there is some uncertainty regarding the Victorian extension. The boundaries will remain intact but a number of trees will be lost.

6.1.2 The assessment of impacts is based upon the proposed plan drawing number SK06 Feb 2017, Ref 16.20.

6.2 Assessment of Impacts

6.2.1 The potential impacts of the development are considered to comprise:

- Loss of trees which will negatively affect the overall diversity of the site.
- Potential pollution incident affecting the on-site pot well and stream.
- Increase in night-time lighting from security lights which has the potential to negatively affect foraging bats.
- Temporary increase in vehicle movements during the period of construction into and out of the site.
- Temporary increase in noise, dust and vibration caused by construction work.
- Long term increase in human presence on site following the re-development of the site.
- An increase in potential predation of insects, birds and mammals as a result of new pets.

- Potential fragmentation of new and retained semi-natural habitats as a result of new fencing or walls.
- Destruction of active bird nests during site clearance. It is an offence to damage or destroy active bird nests (see Appendix 3).
- Spread of cotoneaster as a result of development activities. It is an offence to plant or otherwise cause this plant species to grow in the wild (see Appendix 3).
- There is a low likelihood of impacting bats, if trees displaying low bat roost potential are removed.

6.2.2 Of the impacts detailed above. Either a pollution incident or the loss of habitats would result in impacts to nature conservation at a site level only.

6.2.3 Methods to avoid or mitigate for the impacts detailed above are discussed in Section 6.3.

6.3 Further Survey and Mitigation

6.3.1 In order to avoid or mitigate ecological impacts of the scheme it is advised that the following recommendations are adopted:

- In order to minimise the risk of a pollution incident to the pot well and spring it is recommended that best construction practice and environmental management including CIRIA guidance (Conolly and Charles, 2005) and various DEFRA/Environmental Agency guidelines (2016), that have replaced the Pollution Prevention Guidelines (Environment Agency, 2007) are followed. In particular site compounds should be sited away from the watercourse and any mechanical equipment used on site should be equipped with spill kits and operators should be trained in their usage.
- Development of a plan to eradicate *Cotoneaster horizontalis* and *Cotoneaster simonsii* from site prior to development in order to prevent seed spread. This can either be undertaken through removing plants prior to works commencing at an appropriate time of year. MEC can advise on appropriate control measures.
- Site clearance should take place at a time when it will not affect nesting birds (outside March to August). If works are to be undertaken during this time then they should be preceded by a nesting bird check.
- All boundaries and associated trees should remain intact. Taking a best practice approach to nature conservation issues, where boundary hedgerows and trees are to be retained, British Standard 5837 (2012): Trees in relation to design, demolition and construction, should be followed. Root Protection Zones (RPZ's) should be calculated and implemented to prevent harm to trees. This should also apply to any trees outwith the site, up to 5 m from the boundary.
- If trees with low bat roost potential are to be removed then precautionary working practices should be followed including felling of the trees during the winter period and leaving wood in-situ for 24 hours prior to removal.

6.3.2 No further survey is recommended providing that mitigation recommendations are adopted and works commence on site within 24 months of the field survey. If works commence after this date then MEC should be contacted to determine the need for further survey.

6.4 Recommended Enhancements

6.4.1 In accordance with the aims of planning policy NPPF: 11, it is suggested that the developer follows the recommendations detailed below. Please note that the enhancements have been informed by the results and findings of the field survey.

- Half of the properties should have in-situ cavity boxes or bat tubes integral to the fabric of the buildings situated high on the south and west facing gables but not over windows or doors. The remainder should have house sparrow boxes under eaves either integral to the fabric of the building or fastened to the wall surface.
- New tree and shrub plantings should be an integral component of the soft landscaping proposals for the site. Plantings within the site should be generous and be locally native standard species of trees and shrubs.
- Dwelling boundaries and fences should not impede the free movement of hedgehogs throughout the site.

6.5 Conclusion

6.5.1 Provided the mitigation options detailed in section 6.3 are adopted then no significant impacts on nature conservation are envisaged.

6.5.2 No further survey is recommended providing works commence on site within 24 months of the field survey.

7. References

Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines. The Bat Conservation Trust.

Connolly, S and Charles, P. (2005) Environmental Good Practice Pocket Book. CIRIA, London.

Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) *Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man*. British Birds 108, 708–746.

Environment Agency (2007) Pollution Prevention Guidelines – Works and maintenance in or near water: PPG5. Now retracted, but available from: https://www.gov.uk/government/collections/pollution-prevention-guidance-ppg

Froglife (1999) Froglife Advice Sheet 10: reptile survey. Froglife, London.

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

Gunnel K, *et al* (2013) Designing for Biodiversity: A technical guide for new and existing buildings, RIBA Publishing.

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

Institute of Environmental Management (2006) Guidelines for Ecological Impact Assessment in the United Kingdom.

Institute of Environmental Management (2013) Guidelines for Preliminary Ecological

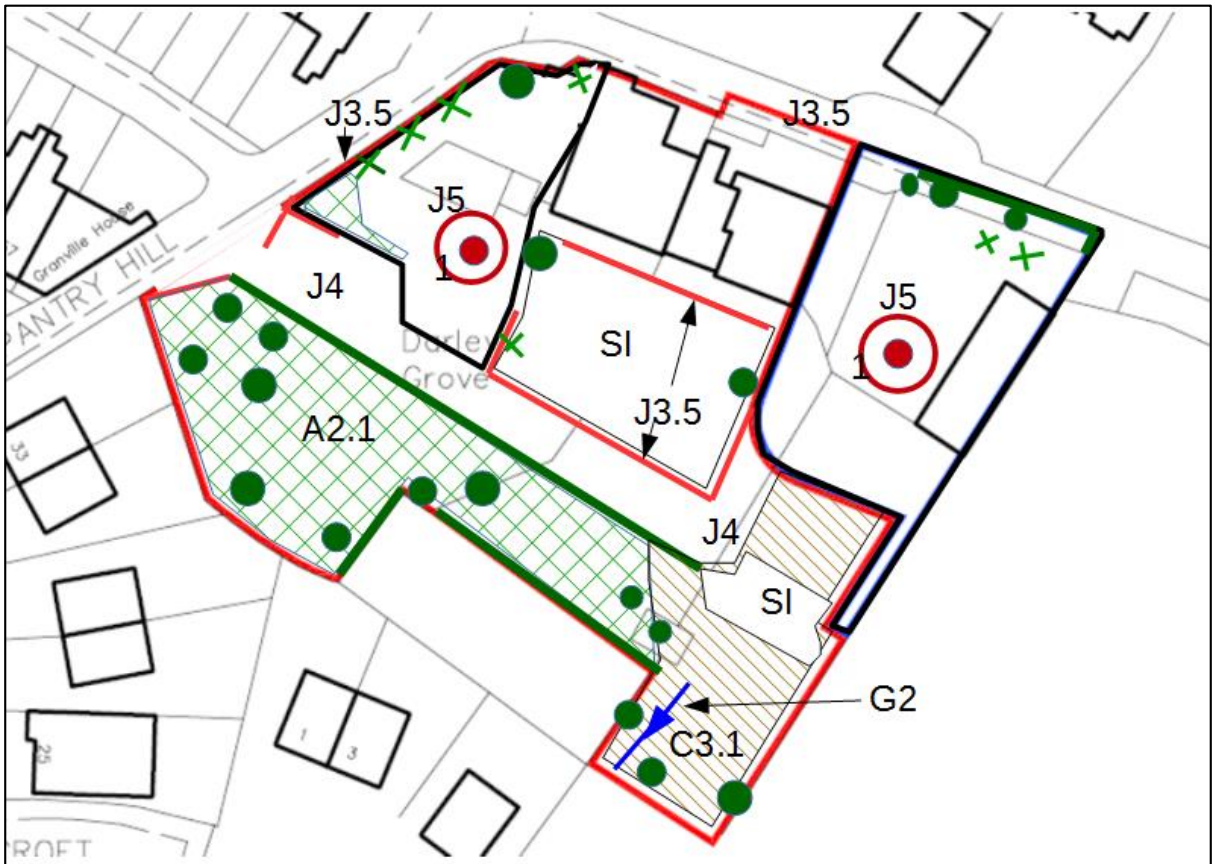
appraisal.

Joint Nature Conservation Committee (2010). Handbook for Phase 1 Habitat Survey - a Technique for Environmental Audit. Reprinted by JNCC, Peterborough.

Mitchel- Jones AJ (2004) Bat Mitigation Guidelines, English Nature.

Rodwell, J.S, (2006) NVC Users' Handbook. JNCC

Appendix 1. Phase 1 Plan and Aerial Image



Target Note: J5 Other (bare ground, ephemeral, grass and introduced shrubs)

Appendix 2. Plant Species Recorded on Site

Full Species List		
English Name	**Scientific Name**	**DAFOR Rating**
Yorkshire fog	*Holcus lanatus*	F
Red fescue	*Festuca rubra*	F
Broad leaved dock	*Rumex obtusifolius*	F
Red valerian	*Centranthus ruber*	R
Spear thistle	*Cirsium vulgare*	R
Leyland cypress	*Cupressocyparis leylandii*	Loc D
Sycamore	*Acer psuedoplatanus*	O
Dandelion	*Taraxicum offinale*	F
Field Maple	*Acer campestre*	R
Nettle	*Urtica dioica*	Loc D
Elder	*Sambucus nigra*	R
Ragwort	*Senecio jacobea*	F
Cock's foot	*Dactylis glomerata*	O
Coltsfoot	*Tussalago farfara*	O
Wall cotoneaster	*Cotoneaster horzontalis*	R
Hawthorn	*Crataegus monogyna*	R
Bramble	*Rubus fruticosus*	Loc A
Pinappleweed	*Matricaria discoidea*	O
Creeping buttercup	*Ranunculus repens*	O
Ribwort plantain	*Plantago lanceolata*	F
Knotgrass	*Polygonum aviculare*	F
Nipplewort	*Lapsana communis*	R
False oat-grass	*Arrhenatherum elatius*	A
Creeping bent	*Agrostis stolonifera*	F
Shepherd's purse	*Capsella bursa-pastoris*	R
White clover	*Trifolium repens*	F
Hedge mustard	*Sisymbrium offinale*	R
Hazel	*Corylus avellana*	R
Great willowherb	*Epilobium hirsutum*	F
Smooth sowthistle	*Sonchus oleraceus*	F
Perennial sowthistle	*Sonchus arvensis*	O
Ash	*Fraxinus excelsior*	O
Dog rose	*Rosa cannina*	R
Field rose	*Roas arvensis*	R
Perennial ryegrass	*Lolium perenne*	O
Creeping thistle	*Cirsium arvense*	O
Cleavers	*Gallium aperine*	O
Domestic apple	*Malus domestica*	O
Groundsel	*Senecio vulgaris*	R
Sweet chestnut	*Castanea sativa*	R
Buddleja	*Buddleja davidii*	O
Smooth hawksbeard	*Crepis capillaris*	O
Good king henry	*Chenopodium bonus-henricus*	R
Common orache	*Atriplex patula*	R
Spear leaved orache	*Atriplex prostrata*	R
Butterbur	*Petasites hybridus*	Loc A
Beech (copper)	*Fagus sylvatica*	R
Wild cherry	*Prunus avium*	F

Full Species List		
English Name	**Scientific Name**	**DAFOR Rating**
Whitebeam	*Sorbus aria*	R
Holly	*Ilex aquifolium*	R
Ivy	*Hedera helix*	Loc A
Privot	*Ligustrum ovalifolium*	R
Weeping willow	*Salix chrysocoma*	R
Aucuba	*Aucuba japonica*	R
Cotoneaster simonsii	*Cotoneaster simonsii*	O
Pendulous sedge	*Carex pendula*	O
Purple toadflax	*Linaria purpurea*	O
Scented mayweed	*Matricaria recutita*	R
Silver birch	*Betula pendula*	O
Virginia creeper	*Parthenocissus spp*	Loc A
Honeysuckle	*Lonicera periclymenum*	R
Common figwort	*Scrophularia nodosa*	R
Fuchsia	*Fuchsia magellanica*	O
Curled dock	*Rumex crispus*	O
Yew	*Taxus baccata*	O
Rosebay	*Chamerion angustifolium*	Loc A
Skimmia	*Skimmia japonica*	R
Hebe sp	*Hebe sp*	R
Common field speedwell	*Veronica persica*	R
Dovesfoot cranesbill	*Geranium molle*	R
Field forgetmenot	*Myosotis arvensis*	R
False acacia	*Robinia psuedacacia*	R
Oilseed rape	*Brassica napus*	R
Flowering currant	*Ribes sanguineum*	R

Appendix 3. Relevant Legislation

Wildlife legislation relating to statutory designated sites and species is summarised in Table A1 and A2 below. This legal information is intended for summary only, and the original legal documents should be consulted if a detailed understanding is required.

Table A1. Legislation relating to designated sites and habitats

Designated Site	Legal Status
Local Nature Reserves (LNR)	LNRs are of local, but not necessarily national, importance. An LNR can also be an SSSI (Site of Special Scientific Interest), but often is not, or may have other designations. Except where the site is an SSSI, there is no legal necessity to manage an LNR to any set standard and there is no national legal protection specifically for LNRs. An LWS has certain protection against development on and around it. This protection is usually given via the local plan, (produced by the Local Planning Authority (LPA), and often supplemented by local by-laws.
Local Wildlife Site (LWS)	While they have no direct legal status, Local Wildlife Sites are considered important enough to receive recognition within the planning system. National planning policy requires local authorities to identify Local Wildlife Sites and provide for their protection through local policy.

Table A2. Legislation relating to species

Species	Legal Status
European protection	
European Protected Species (EPS) (including bats, Great Crested Newt (GCN), otter and hazel dormouse)	These animal species and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats and Species (Amendment) Regulations 2012, which makes it illegal to: • Intentionally or deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs; • Deliberately disturb such an animal; • Damage or destroy a breeding site or resting place of such an animal. European Protected Species (EPS) licences can be granted by Natural England in respect of development to permit activities that would otherwise be unlawful under the Conservation Regulations, providing that the following 3 tests (set out in the EC Habitats Directive) are passed: • The development is for reasons of overriding public interest; • There is no satisfactory alternative; and • The favourable conservation status of the species concerned will be maintained and/or enhanced. Under Regulation 9(5) of the Conservation Regulations, Planning Authorities have a legal duty to 'have regard to the requirements of the EC Habitats Directive in the exercise of their functions'. This means that they must consider the above 3 tests when determining whether Planning Permission should be granted for developments likely to cause an offence under the Conservation Regulations. As a

Species	Legal Status
	consequence, Planning Applications for such developments must demonstrate that the 3 tests will be passed. Natural England also allow sites to be registered on the Bat Low Impact Class Licence to permit activities that would otherwise be unlawful under the Conservation Regulations where the 3 tests can be passed and the bat roosts to be impacted are of low conservation status.
National protection	
European Protected Species and other species including: water vole and white clawed crayfish	These animals receive full protection under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: • Intentionally kill, injure or take any such animal; • Intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any such animal; and • Intentionally or recklessly disturb such animals while they occupy a place used for shelter or protection.
Common amphibians and reptile species	These animals receive limited protection under The Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal to intentionally kill or injure any such animal.
Badger	The Protection of Badgers Act 1992 makes it illegal to wilfully kill or injure a Badger, or attempt to do so and also make it illegal to intentionally or recklessly interfere with a Badger sett. This includes damaging or destroying a sett, obstructing access to a sett and disturbing a Badger while it is occupying a sett. Licences can be granted by Natural England to permit sett closure and/or disturbance between July and November inclusive.
Schedule 1 birds	Special penalties relate to offences concerning birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). In addition to the offences detailed above relating to all wild birds, it is illegal to intentionally or recklessly disturb any Schedule 1 bird or their dependent young while nesting.
All bird species	All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: • Intentionally kill, injure or take any wild bird; • Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.
Invasive species	The Wildlife and Countryside Act 1981 (as amended) contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 of the Act. In relation to Schedule 9 plants it is an offence to plant or otherwise cause these plant species to grow in the wild.

Species and Habitats of Principal Importance

Planning authorities have a duty under Section 40 of the NERC Act 2006 to have regard to priority species and habitats in exercising their functions including development control and planning. In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principal importance for conserving biodiversity in England under the UK Post-2010 Biodiversity Framework. This is known as the

list of Habitats and Species of Principal Importance (HPI/SPI). The HPI/SPI list is used to guide planning authorities in implementing their duty under the NERC Act.

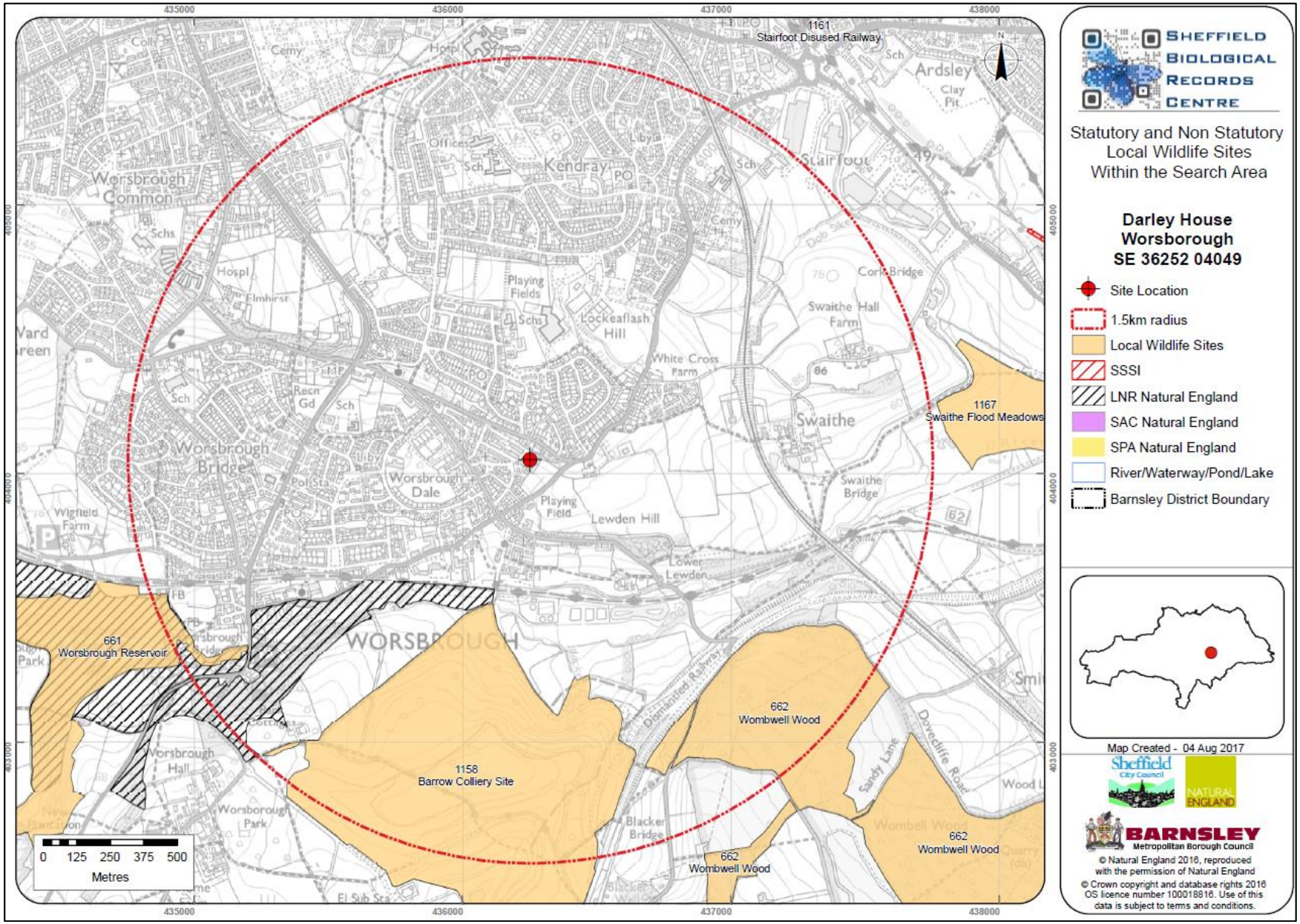
National Planning Policy Framework

The National Planning Policy Framework for England was introduced in March 2012. The NPPF's policy on biodiversity has been summarised by the Government as: "The Framework underlines that the planning system should seek not just to protect, but, where possible to enhance biodiversity – making sure we don't just have isolated pockets of wildlife, but rich and connected green spaces for all kinds of species to thrive. Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland."

Local Biodiversity Action Plans

The HPI/SPI list included on Section 41 of the NERC Act 2006 is supported by a series of Local Biodiversity Action Plans (LBAPs), usually set up on a local authority local authority administrative boundary basis. Each LBAP identifies those habitats and species considered to be most important in that area (usually referred to as priority habitats and species). Commonly, an LBAP will identify a number of habitats and species for which "action plans" have been prepared.

Appendix 4. Designated Sites Map



Appendix 5. Data Search

Grid Ref	*Location Name*	*Text Date*	*Group*	*Common Name*	*BAP Species*	*Comments*
SE365031	Cascades Pond	01/01/2000	amphibian	Common Toad	1.00	6-7 adults in amplexus
SE363031	Powder Mill Lane pond	05/04/2015	amphibian	Common Toad	1.00	c200 toads, much croaking from males
SE360034	Dark Lane pond	25/03/2011	amphibian	Common Toad	1.00	100+ toads around edges of pond
SE363031	Powder Mill Lane pond	25/03/2011	amphibian	Common Toad	1.00	100+ toads around edges of pond
SE360034	Dark Lane Pond	04/04/2015	amphibian	Common Toad	1.00	many toads around edges of pond
SE363032	Blacker Dike Pond	21/03/2012	amphibian	Common Toad	1.00	over 100 many in amplexus
SE349033	Worsbrough Reservoir	06/05/2013	terrestrial mammal	Noctule	1.00	several -difficult to count
SE349034		03/08/1986	terrestrial mammal	Noctule	1.00	several in flight detected
SE3503		17/07/1991	terrestrial mammal	Noctule	1.00	exit count tree roost 1
SE352032	Button Mill Inn	24/06/1999	terrestrial mammal	Noctule	1.00	1 exit count
SE352032	Button Mill Inn	06/07/1991	terrestrial mammal	Noctule	1.00	1 exit count
SE352032	Button Mill Inn	21/08/1981	terrestrial mammal	Noctule	1.00	4 exit count
SE349047	Ridge Walk Way, 33	21/06/1998	terrestrial mammal	Noctule	1.00	
SE37030291	Wombwell Wood	31/07/2015	reptile	Grass Snake	1.00	Large dead specimen (approx 80 cm long) in edge of wood near Wombwell

Grid Ref	Location Name	Text Date	Group	Common Name	BAP Species	Comments
						Lane - being fed on by buzzard.
SE36870294	Wombwell Lane	01/08/2015	reptile	Grass Snake	1.00	Juvenile dead on edge of Wombwell Lane.
SE3503	Canal basin	23/05/1991	reptile	Grass Snake	1.00	Being attacked by a magpie.
SE3503	canal basin	23/05/1991	reptile	Grass Snake	1.00	attcked by Magpie but unharmed
SE360034	Worsbrough Dale Sewage Works Pond	01/01/2000	reptile	Grass Snake	1.00	Dead
SE361035	Worsbrough Dale sewage wks	03/04/2011	reptile	Grass Snake	1.00	1 in scrub area, N side of River Dove
SE364035	Trans Pennine Trail, Lewden	10/04/2010	reptile	Grass Snake	1.00	1 in grass at side of trail
SE361035	Sewage works	21/04/2012	reptile	Grass Snake	1.00	1 basking in grass under brambles near site entrance
SE365030	Eastern edge of LWS	04/08/2015	reptile	Grass Snake	1.00	Basking in edge of bramble thicket.
SE358030	Barrow	01/01/2014	reptile	Grass Snake	1.00	Snake bit the observer's dog
SE360034	Sediment Ponds	01/01/2015	reptile	Grass Snake	1.00	Immature
SE352036	Ravenholt, Worsbrough	14/10/2015	terrestrial mammal	Otter	1.00	Found dead with no signs of injury. Approximately 1m long and a healthy weight.
SE363026	Barrow	01/01/2010	reptile	Adder	1.00	Freshly cast skin in grassland
SE363028	Barrow	01/08/2012	reptile	Adder	1.00	Immature
SE365029	Barrow	01/03/2011	reptile	Adder	1.00	Crossing open area towards Dovecliffe Wood
SE3603	Lower Lewden	03/05/2008	reptile	Com Lizard	1.00	

Grid Ref	Location Name	Text Date	Group	Common Name	BAP Species	Comments
SE3603	Lower Lewden	05/05/2008	reptile	Com Lizard	1.00	
SE3603	Lower Lewden	01/01/2011	reptile	Com Lizard	1.00	
SE368037	Lewden quarry bank	25/05/2013	reptile	Viviparous Lizard	1.00	1 on south facing sandy bank
SE368037	Lewden quarry bank	25/05/2013	reptile	Viviparous Lizard	1.00	1 on south facing sandy bank
SE352049	Mount Vernon Cres.	01/09/2000	terrestrial mammal	55 Khz Pipistrelle	1.00	1
SE3503		01/01/1991	terrestrial mammal	Harvest Mouse	1.00	Jaw bone found in a tawny owl pellet.
SE3603	Worsbrough Dale	25/03/2011	terrestrial mammal	Brown Hare	1.00	1 in field, Powder Mill Lane
SE360028	Top grassland	16/02/2013	terrestrial mammal	Brown Hare	1.00	1 disturbed in rough grassland
SE361029	SE sector	03/05/2014	terrestrial mammal	Brown Hare	1.00	one
SE372032	Northern sector	22/02/2014	terrestrial mammal	Brown Hare	1.00	1 flushed from bracken
SE361028	top plateau	23/02/2012	terrestrial mammal	Brown Hare	1.00	one
SE3603	Barrow Colliery	12/04/1990	terrestrial mammal	Brown Hare	1.00	1
SE3503	Barrow Colliery	20/04/1990	terrestrial mammal	Brown Hare	1.00	1
SE36950330	Wombwell Wood	08/09/1986	terrestrial mammal	Brown Hare	1.00	1 dor
SE363039	Worsbrough Dale B6100	13/08/1980	terrestrial mammal	Hedgehog	1.00	1 dor
SE3503		25/05/2013	terrestrial mammal	Hedgehog	1.00	Released from rehabilitation and care

Grid Ref	Location Name	Text Date	Group	Common Name	BAP Species	Comments
SE350040	Worsbrough, Tenters Green	18/07/2012	terrestrial mammal	Hedgehog	1.00	1 in garden, regular visits from 5th June - 18th July
SE350035	Worsbrough, Tenters Green	25/04/2013	terrestrial mammal	Hedgehog	1.00	1 in garden
SE351032	A61, Worsbrough	05/05/2012	terrestrial mammal	Hedgehog	1.00	a dead road casualty
SE350040	Worsbrough, Tenters Green	15/06/2012	terrestrial mammal	Hedgehog	1.00	1 in garden, first sighting
SE360035	Canal Basin	07/10/2012	terrestrial mammal	Hedgehog	1.00	1 young animal in grassland, daytime
SE358035	Trans Pennine Trail (Worsbrough)	30/11/2013	terrestrial mammal	Hedgehog	1.00	a dead animal on the Trans Pennine Trail
SE368029	Wombwell Lane	04/08/2015	terrestrial mammal	Hedgehog	1.00	Dead on edge of Wombwell Lane.
SE3503	Worsborough	15/05/1981	terrestrial mammal	Hedgehog	1.00	One
SE3503	Worsborough Dale	01/01/1981	terrestrial mammal	Hedgehog	1.00	1 dead on road
SE3603	Worsborough	25/10/1991	terrestrial mammal	Hedgehog	1.00	corpse on Dove Valley Trail
SE363039	Worsborough Dale	13/08/1980	terrestrial mammal	Hedgehog	1.00	B6100, dead on road
SE3503	Worsborough	23/09/1991	terrestrial mammal	Hedgehog	1.00	corpse on road to Worsborough village
SE3503	Worsborough Country Park	02/09/1988	terrestrial mammal	Hedgehog	1.00	1 walking along path in full daylight
SE3503	Worsborough	08/09/1989	terrestrial mammal	Hedgehog	1.00	Wooley Bank Road, 1 corpse
SE349034		03/08/1986	terrestrial mammal	Daubenton's Bat	0.00	several bats seen and detected

Grid Ref	Location Name	Text Date	Group	Common Name	BAP Species	Comments
SE352033	Area near Worsbrough Bridge	08/04/2016	amphibian	Common Frog	0.00	Single blob of frogspawn in small pond.
SE363031	Powder Mill Lane Pond	25/03/2016	amphibian	Common Frog	0.00	several clumps of spawn and many croaking frogs
SE365030	North-east Pond	03/06/2007	amphibian	Common Frog	0.00	
SE366030	North-East Pond	01/01/2001	amphibian	Common Frog	0.00	Frog spawn
SE360034	Worsbrough Dale Sewage Works Pond	01/01/2001	amphibian	Common Frog	0.00	Frog spawn
SE365031	Cascades Pond	01/01/2000	amphibian	Common Frog	0.00	Frog spawn
SE365031	Cascades Pond	01/01/2001	amphibian	Common Frog	0.00	Frog spawn. 200-300 clumps
SE360034	Worsbrough Dale Sewage Works Pond	01/01/2000	amphibian	Common Frog	0.00	Frog spawn
SE363031	Powder Mill Lane pond	05/04/2015	amphibian	Common Frog	0.00	1 clump of fresh spawn, no frogs seen
SE360034	Dark Lane Pond	08/03/2014	amphibian	Common Frog	0.00	first frogs of the year
SE360034	Dark Lane Pond	15/03/2014	amphibian	Common Frog	0.00	20 or more frogs
SE360034	Dark Lane Pond	15/03/2015	amphibian	Common Frog	0.00	4 clumps of spawn in pond
SE360034	Dark Lane Pond	16/03/2012	amphibian	Common Frog	0.00	15 clumps of spawn in pond
SE372036	Swaithe Viaduct area	19/03/2011	amphibian	Common Frog	0.00	spawn in small pond on south side of River Dove

Grid Ref	Location Name	Text Date	Group	Common Name	BAP Species	Comments
SE3503	Canal	25/07/1991	amphibian	Common Frog	0.00	Young frogs.
SE361034	Sediment Pond (large)	03/06/2007	amphibian	Smooth Newt	0.00	
SE363032	Blacker Dike Pond	21/03/2012	amphibian	Smooth Newt	0.00	under stone on land
SE366030	North-East Pond	01/01/2001	amphibian	Smooth Newt	0.00	Breeding activity
SE362025	SE sector	20/03/2005	amphibian	Smooth Newt	0.00	3 in drainage ditch in plantation woodland
SE358030	plateau pools, north	03/06/2007	amphibian	Smooth Newt	0.00	
SE352032	Button Mill Inn	03/06/1993	terrestrial mammal	Pipistrelle	0.00	369 exit count
SE352032	Button Mill Inn	24/06/1999	terrestrial mammal	Pipistrelle	0.00	112 exit count
SE352032	Button Mill Inn	11/06/1997	terrestrial mammal	Pipistrelle	0.00	450 exit count
SE352032	Button Mill Inn	03/06/1997	terrestrial mammal	Pipistrelle	0.00	467 exit count
SE352032	Button Mill Inn	19/06/2000	terrestrial mammal	Pipistrelle	0.00	122 exit count
SE352032	Button Mill Inn	07/06/2000	terrestrial mammal	Pipistrelle	0.00	100 exit count
SE351050	5 Milden Place	28/06/1995	terrestrial mammal	Pipistrelle	0.00	roost 13 exit count
SE3503	3 Osmond Place	01/08/1985	terrestrial mammal	Pipistrelle	0.00	roost in house
SE349047	33 Ridge Walk Way Ward Green	21/06/1998	terrestrial mammal	Pipistrelle	0.00	roost exit count 10

Grid Ref	Location Name	Text Date	Group	Common Name	BAP Species	Comments
SE352032	Button Mill Inn	10/06/1993	terrestrial mammal	Pipistrelle	0.00	283 exit count
SE352032	Button Mill Inn	16/06/1993	terrestrial mammal	Pipistrelle	0.00	366 exit count
SE349033	Mill House	21/06/1989	terrestrial mammal	Pipistrelle	0.00	1 exit count
SE352032	Button Mill Inn	16/07/1992	terrestrial mammal	Pipistrelle	0.00	525 exit count
SE352032	Button Mill Inn	21/08/1992	terrestrial mammal	Pipistrelle	0.00	160 exit count
SE349034	mill	30/08/1997	terrestrial mammal	Pipistrelle	0.00	75 exit count
SE349034	mill	16/06/2000	terrestrial mammal	Pipistrelle	0.00	3 exit count
SE349033	Mill House	09/06/2000	terrestrial mammal	Pipistrelle	0.00	79 exit count
SE352032	Button Mill Inn	19/06/1996	terrestrial mammal	Pipistrelle	0.00	451 exit count
SE352032	Button Mill Inn	23/06/1994	terrestrial mammal	Pipistrelle	0.00	374 exit count
SE352032	Button Mill Inn	03/06/1996	terrestrial mammal	Pipistrelle	0.00	412 exit count
SE352032	Button Mill Inn	02/06/1994	terrestrial mammal	Pipistrelle	0.00	444 exit count
SE352032	Button Mill Inn	17/07/1991	terrestrial mammal	Pipistrelle	0.00	201 exit count
SE352032	Button Mill Inn	01/06/1992	terrestrial mammal	Pipistrelle	0.00	237 exit count
SE352032	Button Mill Inn	15/06/1992	terrestrial mammal	Pipistrelle	0.00	310 exit count

Grid Ref	Location Name	Text Date	Group	Common Name	BAP Species	Comments
SE352032	Button Mill Inn	28/06/2000	terrestrial mammal	Pipistrelle	0.00	366 exit count
SE352032	Button Mill Inn	06/07/1991	terrestrial mammal	Pipistrelle	0.00	238 exit count
SE352032	Button Mill Inn	02/08/1991	terrestrial mammal	Pipistrelle	0.00	311 exit count
SE355037	7 Broomroyd Worsborough Bridge	01/06/1990	terrestrial mammal	Pipistrelle	0.00	1
SE350040	Tenters Green	12/04/2011	terrestrial mammal	Pipistrelle	0.00	1 flying around street lamp at dusk
SE350040	Worsbrough, Tenters Green	17/08/2014	terrestrial mammal	Pipistrelle	0.00	1 flying near street lamp at dusk
SE350040	Tenters Green	21/04/2011	terrestrial mammal	Pipistrelle	0.00	1 flying around street lamp at dusk
SE3658705075	Kendray	15/09/2014	terrestrial mammal	Pipistrelle	0.00	Foraging in front of derelict Kendray pub for around 30 minutes.
SE3603	Worsbrough Dale Sewage Works	24/03/1982	terrestrial mammal	Bats	0.00	
SE349043	Ward Green Primary School	25/09/2002	terrestrial mammal	Bats	0.00	Bat in school hall
SE374037	TPT Dove Valley	21/03/2012	terrestrial mammal	Badger	0.00	culvert used by badgers - fresh latrines
SE376045	Swaithe Hall	04/08/2010	terrestrial mammal	45 Khz Pipistrelle	0.00	1 bat
SE3603	sewage works, Worsbrough Country Park	31/03/1994	terrestrial mammal	Water Vole		1

Grid Ref	Location Name	Text Date	Group	Common Name	BAP Species	Comments
SE3603	sewage works, Worsbrough Country Park	31/03/1994	terrestrial mammal	Water Vole		1
SE3603	sewage works	01/01/1990	terrestrial mammal	Water Vole		1
SE3603	sewage works	11/05/1988	terrestrial mammal	Water Vole		1
SE3703	River Dove at Lewdwen	08/06/1980	terrestrial mammal	Water Vole		
SE353030	Oak Tree, Park Cottages	15/07/2001	terrestrial mammal	Bats	0.00	
SE36620301	Eastern edge of LWS	14/10/2015	terrestrial mammal	Badger	0.00	Very clear tracks in soft mud.
SE353033	canal	06/08/1977	terrestrial mammal	Water Vole		live
SE352032	Button Mill Inn	21/08/1981	terrestrial mammal	Unidentified Bat	0.00	exit count
SE3503		12/08/1991	terrestrial mammal	Water Vole		1 seen
SE3603		26/08/1985	terrestrial mammal	Water Vole		1
SE3503		07/05/1985	terrestrial mammal	Water Vole		1
SE3503		16/05/1978	terrestrial mammal	Bats	0.00	