peakecology LIMITED
ECOLOGICAL CONSULTANTS



Preliminary Ecological Appraisal

Land off Bleachcroft Way, Barnsley

ISSUE RECORD

Client name	U and I Group PLC
Project name	Land off Bleachcroft Way, Barnsley
Project number	Savil03
Report title	Preliminary Ecological Appraisal
Issue number	1
Date	12/09/2016
Written by	Chris Grocock BSc (Hons) MSc GradCIEEM Ecologist
Checked by	Katie Hadwin BSc (Hons) MSc ACIEEM
Approved by	Jessica Eades BSc (Hons) MCIEEM Principal Ecologist

The information and advice contained in this report has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Peak Ecology is accredited under ISO9001 and as such this report follows the styles and formatting template set out within our Quality Management Form

ISO9001	QMF 32	Issue 1	Reviewed 04/03/2016

Peak Ecology Limited
Arden House
Deepdale Business Park
Bakewell
Derbyshire
DE45 1GT
01629 812511

www.peakecology.co.uk

EXECUTIVE SUMMARY

Overview

This report has been prepared by Peak Ecology Ltd on behalf of U and I Group PLC. It provides the results of a Preliminary Ecological Appraisal associated with a proposed residential development at Land off Bleachcroft Way, Barnsley. The site comprised approximately 11ha of land on the south-eastern outskirts of Barnsley, South Yorkshire (central grid reference: SE 3721 0499). The site itself comprised a mosaic of scrub, tall ruderal and semi-improved grassland with a small industrial area in the north-west corner. Surrounding land use comprised industrial, agricultural and residential.

Designated Sites

Several statutory and non-statutory sites were returned as part of the desk study, the closest being Stairfoot Disused Railway Local Wildlife Site. No sites will be affected as a result of the development.

Habitats

No rare or notable floral species were found and the habitats are not included in the UK Post-2010 Biodiversity Framework. Therefore, no significant ecological impacts are envisaged.

Two stands of invasive Japanese knotweed *Fallopia japonica* were present as were several large areas of invasive Himalayan balsam *Impatiens glandulifera*. These must either be eradicated from the site or, as a minimum, prevented from spreading further.

Protected Species

Birds

The works will reduce the opportunities for nesting and foraging for a range of bird species. Furthermore, if vegetation clearance is to take place during the bird breeding season, nest could be damaged or destroyed or birds themselves could be injured or killed.

Vegetation clearance should take place outside of the bird nesting season (March – August). If this is not possible a pre-works nesting bird check should be conducted by an appropriately experienced ecologist.

Due to the loss of a reasonably large area of suitable nesting habitat, bird boxes should be incorporated into the new scheme. As foraging habitat for birds will also be lost, any plants used in soft landscaping should include native species and should be selected for their value for wildlife; for example, nectar rich plants which attract insects would in turn attract birds.

Bats

No evidence of or potential for roosting bats was found on site therefore no impacts are envisaged. However, the works will result in a reduction of the amount of foraging habitat available. Furthermore, any new lighting associated with the scheme has the potential to disturb foraging and commuting bats. A dark corridor should therefore be maintained along

the ditch and Dob Sike to minimise disturbance to roosting bats. As foraging habitat for bats will also be lost, any plants used in soft landscaping should include native species and should be selected for their value for wildlife; for example, nectar rich plants which attract insects would in turn attract bats

Other Mammals

Badgers *Meles meles* are thought unlikely to be present on site given the lack of evidence found on site such as latrines or setts. However, it cannot be ruled out that badger setts could be present within areas of inaccessible scrub which, if present, could be disturbed, damaged or destroyed by the works. Contractors should remain vigilant for large mammal holes beneath any scrub which is cleared. If found, works must stop and an ecologist be contacted.

Any open trenches or pits must be covered over at night or left with a sloping end, to prevent mammals such as badgers or hedgehogs *Erinaceus* europaeus from falling in and becoming trapped. Similarly, any pipes over 200mm will need to be capped off at night to prevent mammals from using them for shelter.

Water Voles

Water vole *Arvicola amphibius* are thought unlikely to be present on site given the sub-optimal habitats present. However, this cannot be confirmed without a species specific survey. If water vole were to be present on site the works have the potential to damage or destroy burrows or to disturb, injure or kill the animals themselves. Therefore, works should not take place within 5m of the banks of the ditch or the stream. If this is not possible a water vole survey would need to be conducted.

Otters

It was considered possible that otters *Lutra lutra* may periodically commute along Dob Sike. Works should be timed to avoid dusk and dawn to prevent disturbance. Any open trenches or pits must be covered over at night or left with a sloping end, to prevent mammals from falling in and becoming trapped. Similarly, any pipes over 200mm will need to be capped off at night to prevent mammals from using them for shelter.

CONTENTS PAGE

1 INTRODUCTION 1
1.1 Scope of Report 1
1.2 Site Description 1
1.3 Planning Context 2
2 METHODOLOGY 3
2.1 Desk Study 3
2.2 Phase 1 Habitat Survey 3
2.3 Scoping for Protected / Notable Species 3
2.4 Surveyors 4
2.5 Limitations 4
3 RESULTS 5
3.1 Desk Study 5
3.2 Phase 1 Habitat Survey 7
3.3 Protected / Notable Species Assessment 11
4 EVALUATION 13
4.1 Designated Sites 13
4.2 Habitats & Botanical Interest 13
4.3 Protected / Notable Species 13
5 RECOMMENDATIONS 15
5.1 Additional Surveys 15
5.2 Avoidance Measures / Mitigation 15
5.3 Protected / Notable Species 15
5.4 Ecological Enhancement 16
6 REFERENCES 18
APPENDIX A : Relevant Legislation 20
APPENDIX B : Assessment Method for Great Crested Newts 25
APPENDIX C : Assessment Method for Bats 26
APPENDIX D : Botanical Species 28
APPENDIX E : Site Photographs 29

LIST OF TABLES

Table 1: Designated sites identified during the desk study 5
Table 2: Summary of protected and notable species records 5
Table 3: Example Bird and Bat Boxes 17
Table 4: Species-Specific Wildlife Legislation 21
Table 5: Summary of HSI assessment scale 25
Table 6: Examples of characteristics that inform assessment of roost potential 26
Table 7: Guidance for assessing the overall value of potential development sites for bats. . 27

1 INTRODUCTION

1.1 Scope of Report

This report has been prepared by Peak Ecology Ltd on behalf of U and I Group PLC. It provides the results of a Preliminary Ecological Appraisal associated with a proposed residential development at Land off Bleachcroft Way, Barnsley. The site was surveyed in 2009 by Arcadis (Arcadis, 2009) in relation to a similar planning application which was not progressed. Additionally, the site was surveyed by Wildscapes in 2013 in relation to the Local Plan. Because of the length of time that has passed since these surveys were undertaken, an update is now required.

The purpose of this report is to:

- Describe the existing habitat types present within the site;
- Provide an assessment of habitat suitability for protected and/or notable species;
- Identify key ecological constraints to the proposed development;
- Provide outline recommendations for mitigation and/or avoidance measures where appropriate;
- Highlight opportunities for ecological enhancement where appropriate; and
- Confirm any further ecological surveys required, for example to confirm presence / likely absence of a specific protected species.

In relation to planning and development, this report should be read in conjunction with the reports for any additional ecological surveys that are recommended as a result of the findings of this appraisal, see Section 5 for details.

The approach to this ecological appraisal follows best practice published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2013 & 2015) and the British Standards Institution (BSI, 2013). Details of individual survey methods and associated supporting information are provided in Section 2.

1.2 Site Description

The site comprised approximately 11ha of land on the south-eastern outskirts of Barnsley, South Yorkshire (central grid reference: SE 3721 0499). The site itself comprised a mosaic of scrub, tall ruderal and semi-improved grassland with a small industrial area in the north-west corner. Surrounding land use comprised industrial, agricultural and residential.

The survey boundary is as per the redline boundary provided by the client. The site location is illustrated in Figure 1.

Figure 1: Location plan*



*© Crown copyright and database rights 2015 Ordnance Survey

1.3 Planning Context

The National Planning Policy Framework 2012 requires that when assessing a planning application all Local Planning Authorities (LPAs) must consider potential impacts on biodiversity that may result from the proposals. In addition to this, county and borough councils typically have biodiversity policies within their Local Development Frameworks that they must also comply with.

In practice, this means that potential impacts on designated sites, notable species and habitats such as those listed on the UK Post-2010 Biodiversity Framework (formerly the UK Biodiversity Action Plan) and species that receive legal direct protection (typically via the Conservation of Habitats and Species Regulations 2010 (as amended) and/or the Wildlife and Countryside Act 1981 (as amended)) are all material planning considerations.

In relation to European Protected Species, the LPA requires sufficient information about likely impacts and mitigation or compensatory measures to satisfy the three Habitats Directive tests, the most relevant to ecological reports being that which relates to the Favourable Conservation Status of the species in question.

2 METHODOLOGY

2.1 Desk Study

The desk study comprised a review of existing information held by the local biological records centre and other specialist groups, as appropriate. Sheffield Biological Records Centre (SBRC) was contacted to obtain locations of designated sites and any existing records of protected or priority species within 2km of the site and a Site Check Report was also carried out using the online interactive mapping tools on the Magic (Multi-Agency Geographic Information for the Countryside) website to identify any statutory designated sites within the search radius.

2.2 Phase 1 Habitat Survey

A daytime site visit was carried out on 26th August 2016. Following standard methodology (JNCC, 2010) the survey comprised a walkover of the site to classify and map the extent of individual habitat types, based on the identification of individual plant species. Any evidence of invasive plants such as Japanese knotweed *Fallopia japonica* was also noted.

The extent of the habitats recorded is illustrated on the Phase 1 Habitat Plan in Figure 2.

Nomenclature for vascular plant species follows Stace (2010).

2.3 Scoping for Protected / Notable Species

The habitats present were assessed for their potential to support any legally protected or otherwise notable species and any incidental sightings or field signs discovered during the surveys were recorded.

All British wildlife and countryside legislation, policy and guidance were taken into consideration including;

- The Wildlife and Countryside Act 1981 (as amended);
- The Conservation of Habitats and Species Regulations 2010 (as amended);
- EC Council Directive on the Conservation of Wild Birds 79/409/EEC;
- The Protection of Badgers Act 1992;
- The Countryside and Rights of Way Act 2000;
- The Hedgerow Regulations 1997;
- The Natural Environment and Rural Communities Act 2006; and
- The UK Post-2010 Biodiversity Framework (formerly known as UK BAP).

Appendix A provides greater detail on the legislation context relevant to this site.

In the case of great crested newts and bats, specific assessment methods have been adopted as the industry standard and these were followed during the survey, see Appendix B and C for detailed methodologies.

2.4 Surveyors

The habitat survey was carried out by Chris Grocock BSc (Hons) MSc GradCIEEM. Chris is experienced in the use of the Phase 1 Habitat Survey methodology, identification of vascular plants and scoping assessments for protected species.

2.5 Limitations

2.5.1 3rd Party Data

Desk study data obtained for this assessment is provided and validated by third parties therefore Peak Ecology have no control over any errors within the dataset. The data represents the information available at the date of request and a lack of records for any particular species does not necessarily indicate absence from the local area as many species are under-recorded.

2.5.2 Survey Methods

Based on the identification of individual plant species, the Phase 1 Habitat Survey provides sufficient information to enable classification of broad habitat types; however, it does not constitute a detailed botanical survey. Plant species lists compiled by this type of survey should not be considered definitive as not all species will be apparent at all times of year.

The scoping assessment for protected species highlights habitats and features suitable for protected species and notes any incidental sightings or field signs discovered; however, it should not be interpreted as providing a comprehensive presence / likely absence survey for any individual species.

2.5.3 Survey Timing and Conditions

The survey was conducted in August, which is within the main plant growing season and a time when most faunal species are active. The site was fully accessible; however, the density of scrub in some areas made a thorough assessment for protected/invasive species difficult.

2.5.4 Lifespan of Data

The results and recommendations contained within this report are considered to be valid for up to two years from the date of survey, assuming that there are no significant changes to the site condition or management within this period. After this period, or should the site conditions change, an update may be required in order to inform ecological constraints to development proposals and/or accompany a planning submission.

3 RESULTS

3.1 Desk Study

3.1.1 Designated Sites

There were several statutory and non-statutory designated sites within the search area, as detailed in Table 1.

Table 1: Designated sites identified during the desk study

Name	Designation	Description	Approximate distance & Direction from site
Stairfoot Disused Railway	Local Wildlife Site (Non-Statutory)	The range of habitats is diverse with south-facing slopes, shaded slopes and low areas between the railway banks supporting a range of species-rich grasslands, scrub, woodland, bracken stands, swamp and open water.	0.35km N
Stairfoot Brickworks	Site of Special Scientific Interest (Statutory)	Geological	0.65km E
Swaithe Flood Meadows	Local Wildlife Site (Non-Statutory)	Swaithe Flood Meadows is currently an arable field which, at the time of the 2010 site visit, was predominantly bare ground with wheat stubble (TN2).	0.65km SE
Dearne Valley Park	Local Nature Reserve (Statutory)	Acidic oak woodland with mosaic of wetland habitats.	1.35km N
Worsborough Country Park	Local Nature Reserve (Statutory)	The site is good for water fowl. Habitats include a reservoir, willow carr, managed grassland/meadowland, reed bed and woodland.	1.65km SW

3.1.2 Protected / Notable Species

Table 2 provides a summary of the species records received from SBRC that are considered most relevant to the site and/or proposals. The full dataset is not included here but is available on request.

Table 2: Summary of protected and notable species records relevant to the site and/or proposals

Species	Approximate location of closest record and date of record	Approximate location of most recent record and date of record	Total Number of Records
Mammals			
Badger *Meles meles*	Within search area*	*; 2016	*
Common Pipistrelle *Pipistrellus pipistrellus*	0.62km SE	SE376045; 2010	1

Species	Approximate location of closest record and date of record	Approximate location of most recent record and date of record	Total Number of Records
Noctule bat *Nyctalus noctula*	1.46km ESE	SE386045; 2000	Present
Amphibians			
Common frog *Rana temporaria*	1km S	SE372036; 2011	Present
Common lizard *Lacerta vivipara*	1.37km SSW	SE368037; 2013	1
Birds			
Barn owl *Tyto alba*	1.26km SE	SE3804; 2005	1
Bullfinch *Pyrrhula pyrrhula*	0.23km W	SE3705; 2009	2
Crane *Grus grus*	0.97km SE	SE379043; 2001	1
Eurasian teal *Anas crecca*	1.2km SE	SE379040; 2016	1
Fieldfare *Turdus pilaris*	0.75km SSW	SE375043; 2016	100
Green woodpecker *Picus viridis*	1.54km SSW	SE369035; 2012	Present
Grey wagtail *Motacilla cinerea*	1.31km S	SE374037; 2012	No details provided
Goldfinch *Carduelis carduelis*	0.77km SSW	SE369043; 2009	No details provided
Goldcrest *Regulus regulus*	0.46km NNW	SE370054; 2009	No details provided
Kingfisher *Alcedo atthis*	1.4km S	SE373036; 2012	No details provided
Lapwing *Vanellus vanellus*	1.38km SSE	SE377037; 2012	No details provided
Linnet *Carduelis cannabina*	0.97km SE	SE379043; 2016	1
Marsh tit *Poecile palustris*	1.31km S	SE374037; 2012	1
Meadow pipit *Anthus pratensis*	1.29km SSE	SE377038; 2012	No details provided
Mistle thrush *Turdus viscivorus*	1.41km S	SE371036; 2012	1
Snipe *Gallinago gallinago*	1.12km SE	SE379041; 2016	1

Species	Approximate location of closest record and date of record	Approximate location of most recent record and date of record	Total Number of Records
Song thrush *Turdus philomelos*	1.23km SSE	SE375038; 2012	1
Starling *Sturnus vulgaris*	0.57km WSW	SE367048; 2009	No details provided.
Woodcock *Scolopax rusticola*	1.11km SE	SE380042; 2016	1
Yellowhammer Emberiza citrinella	1.51km SE	SE380037; 2012	No details provided.
Invertebrates			
Cinnabar moth *Tyria jacobaeae*	0.57km NNE	SE375055; 2013	No details provided.
Latticed heath moth *Chiasmia clathrata*	0.57km NNE	SE375055; 2013	No details provided.
Dingy skipper *Erynnis tages*	0.57km NNE	SE375055; 2013	No details provided.
Small heath *Coenonympha pamphilus*	0.57km NNE	SE375055; 2013	No details provided.
Wall *Lasiommata megera*	0.94km SSE	SE375041; 2009	1

*NB. Due to high risk of persecution of this species, badger records remain confidential at the request of the records centre.

3.2 Phase 1 Habitat Survey

Target Notes (TN) referred to in the text relate to the Phase 1 Habitat Map in Figure 2. A non-exhaustive botanical list can be found in Appendix D. Photographs can be found in Appendix E.

The site comprised a mosaic of scrub and semi-improved grassland. The major extents of these are illustrated on the Phase 1 Habitat Map in Figure 2. However, some areas were too small or too complex to map accurately (see Photograph 1 for overview). Similarly, small areas of tall ruderal were also present within these habitats which again were too small in area to map accurately.

3.2.1 Buildings and Hardstanding

An industrial building and associated hard standing was present in the north-east corner of the site (TN1, Photograph 2). The building was a brick built warehouse with metal cladding on the top half of the building and a pitched metallic roof. Metal roller doors were present but there were no windows. No enclosed roof voids or cellars were present. This building is described in greater detail within Section 3.3.4 in terms of its potential to support roosting bats.

3.2.2 Semi-improved Grassland.

A large proportion of the site was semi-improved grassland (Photograph 3). Dominant grass species included Yorkshire fog *Holcus lanatus*, cock's-foot *Dactylis glomerata*, false oat grass *Arrhenatherum elatius* and meadow grass *Poa* sp. Common herbaceous species were also present including broadleaved plantain *Plantago major*, ribwort plantain *Plantago lanceolata*, bird's foot trefoil *Lotus corniculatus* and yarrow *Achillea millefolium*.

Sward height was up to 0.5m but in the northeast corner of the site were areas with a very short sward height (<1cm), where herbaceous species were dominant. This area was also noted for the large amount of rabbit droppings, suggesting that grazing pressure may have limited the growth of grass species. Similarly, the northwest corner of the site was horse grazed and as such also had a shorter sward height.

In the southeast and northeast corner of the site, areas were present within grassland where rush *Juncus* sp. was frequent (TN2 and TN3).

3.2.3 Scrub

Several large stands of scrub were present dominated by either willow *Salix* sp. (Photograph 4) or bramble *Rubus fruticosus* (Photograph 5). Gorse *Ulex europaeu* and broom *Cytisus scoparius* were also frequent and occasional silver birch *Betula pendula* saplings were also observed. Within the scrub towards the west of the site elder *Sambucus nigra* was abundant as well as some stands of bracken *Pteridium aquilinum* within the scrub (TN4 and TN5).

Throughout the semi-improved grassland were areas of scattered scrub and numerous small stands of scrub too small in area to map accurately.

The banks of the ditch (Section 3.2.7) were dominated by hawthorn *Crataegus monogyna* scrub with abundant bramble. Likewise, the banks of Dob Sike (Section 3.2.8) were dominated by hawthorn scrub with some elder.

3.2.4 Tall ruderal

Several stands of tall ruderal dominated by common nettle *Urtica dioica* and creeping thistle *Cirsium arvense* were present within the grassland and within stands of scrub. These were too small in area to map accurately and have therefore not been included in Figure 2.

3.2.5 Ephemeral/Short Perennial

A small area of ephemeral/short perennial vegetation was present towards the north of the site, growing on a former area of hardstanding (Photograph 6). Dominant species included common ragwort *Jacobaea vulgaris*, ribwort plantain, moss and some scrub/grass species encroaching from the surrounding habitats.

3.2.6 Invasive Species

Two stands of Japanese knotweed were observed within the scrub towards the south of the site, approximately $5m^2$ (TN6) and $10m^2$ (TN7, Photograph 7). However, these stands were within dense scrub and it is possible that further stands were present within areas inaccessible to the surveyor.

Along the southern boundary of the site (within the scrub which grew beside Dob Sike) grew Himalayan balsam *Impatiens glandulifera.* Scattered Himalayan balsam was also present throughout the two large stands of scrub in the southwest corner of the site (TN4 and TN5, Photograph 8).

3.2.7 Ditch

Along the eastern boundary of the site was a ditch approximately 4m wide at the base, 6m wide from bank top to bank top and 2m deep from base to bank top (Photograph 9). At the time of survey the ditch was dry; however, the dominant vegetation was common reed *Phragmites australis* suggesting that the ditch periodically held water. At both the southern and northern end of the ditch the common reed gave way to scrub. The ditch was not connected to a wider ditch network. It is our understanding that this ditch was once a canal.

3.2.8 Running Water

The southern boundary comprised 'Dob Sike', a shallow (<10cm) stream shaded by surrounding hawthorn, elder and willow scrub (Photograph 11). Occasional mature sycamore trees were also observed within this scrub. The stream was approximately 2m wide and 1m deep from base to bank top. The stream bed comprised sediment and gravel.

3.2.9 Introduced Shrub

Around the base Introduced shrub species and tree saplings were present in a planted border around the warehouse building (Photograph 10). Species included ash *Fraxinus excelsior*, buddleia *Buddleja* sp., rowan *Sorbus aucuparia,* bramble and cotoneaster *Cotoneaster* sp.

3.2.10 Boundaries

To the immediate north of the site was a large industrial estate. The western boundary comprised a metal fence which ran alongside the adjacent railway line and the eastern boundary comprised the ditch and associated scrub described in Section 3.2.7. The southern boundary comprised Dob Sike.

Figure 2: Phase 1 Habitat Plan



Map Legend

- Site boundary
- Dense scrub
- Semi-improved grassland
- Ditch
- Ephemeral short perennial
- Introduced shrub
- Building
- Hardstanding
- Running water
- Fence
- Scattered scrub
- Target note

Additional Information:
Please see associated report for further information relating to target notes.



Reproduced from Ordnance Survey Mastermap and StreetView digital map data. Crown Copyright 2016. All rights reserved. Licence number 100049837.

0 25 50 100 m

peakecology LIMITED
ECOLOGICAL CONSULTANTS

Head Office: Arden House, Deepdale Business Park, Bakewell, Derbyshire. DE45 1GT. T: 01629 812511.

Project	Bleachcroft Way, Barnsley [Savil03]			
Figure	Extended Phase 1 Habitat Survey - September 2016			
Client	Savills			
Date	**Reviewer**	**Version**	**Scale**	**Size**
09/09/16	MP	1.1	1:2,250	A3

3.3 Protected / Notable Species Assessment

3.3.1 Amphibians

The habitats on site provided suitable cover and foraging opportunities for amphibians including great crested newts (GCN) *Triturus cristatus*. However, no ponds were present within 500m of the site. Although ditches can provide suitable habitat for GCN, the regular drying of the ditch on site was thought likely to inhibit their presence, particularly as there were no alternative water sources within 500m to act as a 'source' population for the ditch. Furthermore, no records were returned as part of the desk study. GCN were therefore considered unlikely to be present on site.

3.3.2 Reptiles

The site comprised a heterogeneous habitat mosaic providing a range of vegetation for common reptile species and the 2009 report by Arcadis recommended further reptile surveys. However, the site had become considerably more vegetated since the 2009 and 2013 surveys and was considered too overgrown to be optimal for use by reptiles. Furthermore, the site lacked areas of undisturbed open ground for basking (the site was used by dog walkers) and the site was lacking in egg laying material such as compost heaps. Reptiles were considered unlikely to be present on site.

3.3.3 Birds

All vegetated areas on site were suitable for foraging and breeding birds, although the area was likely to be too high in disturbance from, for example, dog walkers, to accommodate ground nesting birds.

Only common birds were observed on site during the survey such as blackbird *Turdus merula* and wren *Troglodytes troglodytes.* All were listed as Green on the latest Bird of Conservation Concern (Eaton et al. 2015).

3.3.4 Bats

The building was categorised as having negligible potential to support roosting bats given the lack of access opportunities into the building and the suboptimal roosting conditions within. Additionally, the trees/scrub species on site were lacking in features such as cracks or woodpecker holes, in which bats could roost. It was considered highly unlikely that roosting bats would be present on site.

The ditch and Dob Sike provided suitable commuting habitats for bats and the entirety of the site provided suitable foraging habitat.

3.3.5 Badgers

No evidence of badgers were found on site such as setts, snuffle holes or latrines. Numerous mammal trails were observed but these could have been created by, for example, fox *Vulpes vulpes* and the site was used by dog walkers. Several areas of the site could not be adequately inspected for badger setts due to the density of the scrub. Furthermore, it cannot be ruled out that badgers may periodically commute through or forage within the site.

3.3.6 Water Voles

No evidence of water voles *Arvicola amphibius* was found such as feeding remains, droppings or burrows, although a thorough species specific survey was not conducted. The ditch was suboptimal for water voles as it did not hold water and was not connected to other watercourses. The stream was also suboptimal habitat for water voles as it was heavily shaded and was largely too shallow to be favoured by water voles.

3.3.7 Otters

No evidence of otters *Lutra lutra* were found such as footprints or spraints although a thorough species specific survey was not conducted. The stream was considered suboptimal for otter as it was very shallow and lacked features such as substantial collections of tree roots or cut unders typically favoured for holts/layups. It cannot be ruled out that commuting otters may periodically pass through site.

3.3.8 White-clawed Crayfish

The stream was assessed for its potential to support white-clawed crayfish *Austropotamobius pallipes* but was considered suboptimal due to the lack of, for example, large rocks or collections of tree roots which could provide refugia for crayfish. Furthermore, no records were returned as part of the desk study. White-clawed crayfish were therefore considered unlikely to be present on site and are not considered further within this report.

3.3.9 Other Protected and/or Notable Species

The site was suitable for hedgehog *Erinaceus europaeus.* Due to a lack of suitable habitats, the site is not considered likely to support any other protected or notable species.

4 EVALUATION

4.1 Designated Sites

Due to the distance of the site from any designated sites and the nature of the development, no impacts to any statutory sites or the features for which they are designated are envisaged.

4.2 Habitats & Botanical Interest

4.2.1 General

The habitats and species present on site were likely to be considered common in the wider area. No rare or notable floral species were found and the habitats are not included in the UK Post-2010 Biodiversity Framework. Therefore, no significant ecological impacts are envisaged. However, ideally the scrub through which the ditch and Dob Sike passes should be retained as these provide potentially valuable wildlife corridors for a range of species.

4.2.2 Invasive Species

Both Japanese knotweed and Himalayan balsam are rapidly spreading non-native plants which out-compete native species resulting in a reduction in biodiversity. If the proposed works result in the plants themselves being disturbed or earth within 7m of any plants, there is the possibility of them being spread around the site or being taking offsite and spread further, which would result in an offence under the Wildlife and Countryside Act 1981 (as amended).

4.3 Protected / Notable Species

4.3.1 Herptiles

Herptiles were considered unlikely to be present on site. However, a precautionary approach is recommended as the works have the potential to disturb, injure or kill herptiles, if present i.e. contractors should remain vigilant and stop working if they are encountered.

4.3.2 Birds

The works will reduce the opportunities for nesting and foraging for a range of bird species. Furthermore, if vegetation clearance was to take place during the bird breeding season (March to August), nest could be damaged or destroyed or birds themselves could be injured or killed.

4.3.3 Bats

No potential for bat roosts was observed on site therefore no impacts are envisaged to roosting bats. However, the works will result in a reduction of the amount of foraging habitat available. Furthermore, any new lighting associated with the scheme has the potential to disturb foraging and commuting bats particularly if the areas identified as suitable commuting habitat are illuminated i.e. the ditch and Dob Sike.

4.3.4 Badgers

Badgers are thought unlikely to be present on site given the lack of evidence found. However, it cannot be ruled out that badger setts could be present within areas of inaccessible scrub which, if present, could be disturbed, damaged or destroyed by the works. Additionally, badgers which may pass through the site periodically have the potential to become trapped in excavations/pipes if left uncovered overnight.

4.3.5 Water Voles

Water voles are thought unlikely to be present on site given the sub-optimal habitats. However, this cannot be confirmed without a species specific survey. If water vole were to be present on site the works have the potential to damage or destroy burrows or to disturb, injure or kill the animals themselves.

4.3.6 Otters

It was considered possible that otters may periodically commute along Dob Sike. Otters are a crepuscular species i.e. active at dusk and dawn; works at this time therefore have the potential to disturb otter.

4.3.7 Other Protected and/or Notable Species

Hedgehogs which may use the site have the potential to become trapped in excavations/pipes if left uncovered overnight.

5 RECOMMENDATIONS

5.1 Additional Surveys

Impacts to protected species are considered unlikely with appropriate avoidance measures and mitigation measures discussed below. Therefore, no further surveys are recommended.

5.2 Avoidance Measures / Mitigation

5.2.1 Invasive Species

Japanese knotweed and Himalayan balsam should be excluded from the site using a suitably qualified contractor. If this is not possible, a method statement should be produced to ensure that no further spread occurs during any vegetation clearance associated with the proposed development. Japanese knotweed spreads when small pieces of the plant or rhizomes are broken off - underground rhizomes of Japanese knotweed typically spread up to 7m from each shoot. Himalayan balsam spreads by seed which are 'fired' from seed pods up to 7m from the plant. The method statement would therefore include fencing off stands of the plant with a 7m buffer zone, within which any machinery, which is likely to propel vegetation away from the machine or disturb the earth (such as ground flails/strimmers), should not be used. Certain hand tools could be used within this buffer zone provided that the plant itself is not disturbed. These activities would need to be supervised by an Ecological Clerk of Works. The method statement would need to be produced before the works commenced.

5.3 Protected / Notable Species

5.3.1 Herptiles

Contractors should remain vigilant. In the unlikely event that herptiles are found, works must stop and an ecologist be contacted.

5.3.2 Birds

Vegetation clearance should take place outside of the bird nesting season, which typically runs from late-February to late-August (inclusive). Vegetation clearance outside of the nesting season should still be preceded by a check for nesting birds, undertaken by the contractors, as some species can nest year-round. If vegetation clearance must take place during the bird nesting season, this check must be performed by an appropriately experienced ecologist. Any active nests will need to remain unaffected until all chicks have fledged i.e. a buffer must be left around the nest within which the vegetation must not be disturbed – the size of this buffer is species dependant and must be determined by the ecologist.

Due to the loss of a reasonably large area of suitable nesting habitat, bird boxes should be incorporated into the new scheme. Further details are provided in Section 5.4. As foraging habitat for birds will also be lost, any plants used in soft landscaping should include native species and should be selected for their value for wildlife; for example, nectar rich plants which attract insects would in turn attract birds.

5.3.3 Bats

A dark corridor should be maintained along the ditch and Dob Sike to minimise disturbance to roosting bats i.e. any new lighting associated with the development, including any lighting associated with construction compounds should be low level directional lighting which does not illuminate these features.

As foraging habitat for bats will also be lost, any plants used in soft landscaping should include native species and should be selected for their value for wildlife; for example, nectar rich plants which attract insects would in turn attract bats.

5.3.4 Badgers

Any open trenches or pits must be covered over at night or left with a sloping end, to prevent mammals, such as hedgehogs, from falling in and becoming trapped. Similarly, any pipes over 200mm will need to be capped off at night to prevent mammals from using them for shelter.

Contractors should remain vigilant for large mammal holes beneath any scrub which is cleared. If found, works must stop and an ecologist be contacted.

5.3.5 Riparian Mammals

Works should not take place within 5m of the banks of the ditch or the stream. If this is not possible a water vole survey would need to be conducted prior to works commencing.

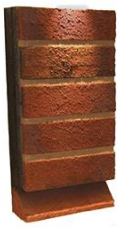
Works should be timed to avoid dusk and dawn to prevent disturbance to otters which may pass along Dob Sike.

5.4 Ecological Enhancement

National planning policy recommends that all developments incorporate ecological enhancement where possible; therefore consideration should be given to the following suggestions.

- Areas of public assess should include green landscaping comprising planting of native species of guaranteed native provenance. These plants should be of benefit to wildlife e.g. provide a nectar source to invertebrates which would in turn attract bats and birds.
- To further attract invertebrates ‘insect hotels’ should be incorporated into areas of green landscaping such as the one shown here: http://bit.ly/1tu4tOc
- A wildlife friendly pond(s) should be considered
- Bird boxes should be mounted on the new buildings or in trees elsewhere on site. It is recommended that a range of box styles be installed at least 2m high in areas offering clear fly-in access such as those listed in Table 3.
- Bat boxes should be installed within the fabric of the new buildings, ideally at eaves height, on gable apices or could be surface mounted on buildings or trees. Examples are provided in Table 3.

Table 3: Example Bird and Bat Boxes

Type	Name	Example Image	Source
Bat box	2F Schwegler Bat Box (General Purpose) (L)		http://www.nhbs.com/title/158629/2f-schwegler-bat-box-general-purpose
Bat box	Habibat Bat Box (custom brick facing to be built into walls)		http://www.nhbs.com/title/183578/habibat-bat-box-custom-brick-facing?bkfno=193477&ca_id=1495&gclid=CN_rk7K-184CFeIp0wodeOIC4w
Bird box (Wren)	Traditional Wooden Bird Nest Box (25mm hole)		http://www.nhbs.com/title/181549/traditional-wooden-bird-nest-box
Bird box (Robin)	Traditional Open Fronted Wooden Bird Nest Box		http://www.nhbs.com/title/202241/traditional-open-fronted-wooden-bird-nest-box

6 REFERENCES

Arcadis (2009) Phase 1 Ecological Walkover Survey – Land off Bleachcroft Way, Barnsley

British Standards Institution (2013) BS42020:2013 Biodiversity – code of practice for planning and development. BSI Standards Ltd, London

BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations. BSI Standards Ltd, London

Chartered Institute of Ecology and Environmental Management (2013) *Competencies for Species Surveys in Britain and Ireland; Overview*. CIEEM, Winchester. Online [Available at] http://www.cieem.net/competencies-for-species-survey-css-

Chartered Institute of Ecology and Environmental Management (2013) *Guidelines for Preliminary Ecological Appraisal*. CIEEM, Winchester

Department for Communities and Local Government (2012) *The National Planning Policy Framework*. http://www.communities.gov.uk/publications/planningandbuilding/nppf

Environment Agency (2013) Managing Japanese knotweed on development sites

Collins J. (ed) (2016) Bat Surveys For Professional Ecologists: Good Practice Guidelines (3rd Edition). Bat Conservation Trust, London.

Joint Nature Conservation Committee (2010) Handbook for Phase 1 Habitat Survey: a technique for environmental audit. JNCC, Peterborough.

Multi-Agency Geographic Information for the Countryside Website. http://www.magic.gov.uk/

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

RSPB (2015) Birds of Conservation Concern 4. RSPB, Sandy, Beds.

Stace, C.S. (2010) New Flora of the British Isles, 3rd edition. University Press, Cambridge.

Wildscapes (2009) UB16 Bleachcroft Way Industrial Estate

APPENDICES

APPENDIX A : Relevant Legislation 20
APPENDIX B : Assessment Method for Great Crested Newts 25
APPENDIX C : Assessment Method for Bats 26
APPENDIX D : Botanical Species Lists 28
APPENDIX E : Site Photographs 29

APPENDIX A : Relevant Legislation

The following text provides information on the key legislation, which is applicable to this survey.

The main wildlife legislation in the UK is as follows:

European Legislation

The relevant sections of the EC Directives and international conventions are summarised below:

- EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitat Directive 1992) as amended (92/43/EEC)

The Directive requires Member States to introduce a range of measures including the protection of species listed in the Annexes. The 189 habitats listed in Annex I of the Directive and the 788 species listed in Annex II, are to be protected by means of a network of sites. Once adopted, these are designated by Member States as Special Areas of Conservation (SACs), and along with Special Protection Areas (SPAs) classified under the EC Birds Directive. The Habitats Directive introduces the precautionary principle; that disturbance to the designated sites can only be permitted having ascertained no adverse effect on the integrity of the site.

- EC Directive on the Conservation of Wild Birds (Birds Directive 1979) as amended (79/409/EEC)

The main provisions of the Directive includes; the maintenance of the favourable conservation status of all wild bird species across their distributional range.

- Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)

The Convention imposes legal obligations on contracting parties, protecting over 500 wild plant species and more than 1000 wild animal species.

UK Legislation

The sections of UK legislation considered to be of relevance include:

- The Conservation (Natural Habitats, and c.) Regulations 2010 (as amended)

This transposes the Habitats Directive into national law. The Regulations provide for the designation and protection of 'European sites', and the protection of 'European protected species.

- The Wildlife and Countryside Act 1981 (as amended) (WCA)

This consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive) in Great Britain.

- The Countryside and Rights of Way Act 2000 (CRoW)

This act strengthens wildlife enforcement legislation.

- The Protection of Badgers Act 1992

Species-Specific Legislation

Species specific legislation is provided in Table 8 below:

Table 4: Species-Specific Wildlife Legislation

Feature/Species	Legislation	It is an offence to:
Plants	Sch. 8 Wildlife and Countryside Act 1981 (as amended)	• Pick; • Uproot; • Trade; • Possess (for trade) Any wild plant listed.
Invasive weeds – Japanese knotweed, Himalayan balsam,	Sch. 9 Wildlife and Countryside Act 1981 (as amended)	• Allow to spread.
Breeding birds	Wildlife and Countryside Act 1981 (as amended). Countryside and Rights of Way Act 2000.	• Kill; • Injure; • Take; any wild bird, their eggs or nest (with the exception of those on Sch. 2).
Specially protected birds	Sch. 1 Wildlife and Countryside Act 1981 (as amended).	As above but includes: • Disturbing birds at their nest, or their dependent young.

Feature/Species	Legislation	It is an offence to:
Badgers	The Protection of Badgers Act 1992	• Wilfully kill, injure, take, or cruelly ill-treat a badger, or attempt to do so; • Possess any dead badger or any part of, or anything derived from, a dead badger; • Intentionally or recklessly interfere with a sett by disturbing badgers whilst they are occupying a sett, damaging or destroying a sett, causing a dog to enter a sett, or obstructing access to it. A badger sett is defined in the legislation as "*any structure or place, which displays signs indicating current use by a badger*".
Bats	Sch. 5 Wildlife and Countryside Act 1981 (as amended). Conservation of Habitats and Species Regulations 2010 (as amended).	• Intentionally or deliberately kill, inure or capture (or take) bats: • Deliberately disturb bats (whether in a roost or not); • Recklessly disturb roosting bats or obstruct access to their roosts; • Damage or destroy bat roosts.
Common reptiles	Sch. 5 Wildlife and Countryside Act 1981 (as amended). Countryside and Rights of Way Act 2000.	Deliberate or reckless: • Killing; • Injuring • Sale.
Common amphibians	Sch. 5 and Sch. 9 Wildlife and Countryside Act 1981 (as amended). Countryside and Rights of Way Act 2000.	• Sell; • Transport; and • Advertise for sale.

Feature/Species	Legislation	It is an offence to:
Great crested newt	Sch. 5 Wildlife and Countryside Act 1981 (as amended). Conservation of Habitats and Species Regulations 2010 (as amended).	• Kill; • Injure; • Disturb • Destroy any place used for rest or shelter.
Water vole	Sch. 5 Wildlife and Countryside Act 1981 (as amended).	• Deliberately capture, injure or kill; • Disturb a water vole whilst it is in its breeding or resting place; • Damage, destroy or obstruct a water vole's breeding or resting place.
Otter	Sch. 5 Wildlife and Countryside Act 1981 (as amended). Conservation of Habitats and Species Regulations 2010 (as amended).	• Deliberately capture, injure or kill an otter; • Disturb an otter in its breeding or resting place; • Damage, destroy or obstruct an otter's breeding or resting place.
White-clawed crayfish	Sch. 5 Wildlife and Countryside Act 1981 (as amended). Conservation of Habitats and Species Regulations 2010 (as amended).	•

In addition, species and habitats listed on the UK Post-2010 Biodiversity Framework (formally the UK BAP) are also considered. Details on these species and habitats can be found at: http://jncc.defra.gov.uk/page-5705

Protected Sites

A network of protected sites, at varying levels, have been put in place across the UK. Further details are provided below;

6.1.1 International importance

- Natura 2000

Natura 2000 is the name of the European Union-wide network of nature conservation sites established under the EC Habitats and Birds Directives. This network will comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

- Special Areas of Conservation (SAC)

SACs are designated under the EC Habitats Directive. The Directive applies to the UK and the overseas territory of Gibraltar. SACs are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are designated under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). New and/or amended Habitats Regulations are shortly to be introduced to provide a mechanism for the designation of SACs and SPAs in UK offshore waters (from 12-200 nm).

6.1.2 National importance

- Sites of Special Scientific Interest (SSSI)

The SSSI series has developed since 1949 as the national suite of sites providing statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features. Most SSSIs are privately-owned or managed; others are owned or managed by public bodies or non-government organisations. The SSSIs designation may extend into intertidal areas out to the jurisdictional limit of local authorities, generally Mean Low Water in England and Northern Ireland; Mean Low Water of Spring tides in Scotland. In Wales, the limit is Mean Low Water for SSSIs notified before 2002, and, for more recent notifications, the limit of Lowest Astronomical Tides, where the features of interest extend down to LAT. There is no provision for marine SSSIs beyond low water mark. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs have been renotified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and the Nature Conservation (Scotland) Act 2004.

6.1.3 Regional/local importance

- Wildlife Sites

Local authorities for any given area may designate certain areas as being of local conservation interest. The criteria for inclusion, and the level of protection provided, if any, may vary between areas. Most individual counties have a similar scheme, although they do vary. These sites, which may be given various titles such as 'Listed Wildlife Sites' (LWS), 'County Wildlife Sites' (CWS), 'Local Nature Conservation Sites' (LNCS), 'Sites of Importance for Nature Conservation' (SINCs), or Sites of Nature Conservation Importance' (SNCIs), together with statutory designations, are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined.

APPENDIX B : Assessment Method for Great Crested Newts

Ponds were evaluated using the Habitat Suitability Index (HSI) assessment method (Oldham et al, 2000). During a daytime site visit, each pond was assessed against 10 key habitat criteria, or Suitability Indices (SI) as follows:

- SI1 Geographic area
- SI2 Pond area
- SI3 Pond drying
- SI4 Water quality
- SI5 % shoreline shade
- SI6 Presence of waterfowl
- SI7 Presence of fish
- SI8 Pond count within 1km
- SI9 Terrestrial habitat quality
- SI10 % macrophyte cover

Based on a standardised scoring system, each SI achieves a score of between 0 and 1, and these are used to calculate an overall score for that pond. The scores equate to a habitat suitability rating as per Table 4 below.

Table 5: Summary of HSI assessment scale

HSI score	Pond Suitability	Occupancy Rate
<0.5	Poor	3%
0.5 – 0.59	Below average	20%
0.6 – 0.69	Average	55%
0.7 – 0.79	Good	79%
>0.8	Excellent	93%

In general, ponds with high HSI scores are more likely to support GCN than those with low scores. This alone does not determine whether or not a pond should be subject to further survey, but rather provides an indication of habitat quality to aid professional judgement on survey requirements and is a useful tool for informing mitigation or ecological enhancement proposals.

APPENDIX C : Assessment Method for Bats

Following current good practice guidelines (Collins (ed) 2016), the assessment comprised a visual inspection of each of the trees and built structures, for the latter including any internal areas such as roof voids or cellars. For ease of reference, each structure was numbered B1, B2, B3 etc and trees were numbered T1, T2, T3 etc.

The location and description of any features such as holes, crevices or internal voids that could potentially be used by roosting bats was recorded and a search was made for any evidence of bat presence such as droppings or feeding remains. Binoculars, ladders, high powered torches and endoscopes were used where necessary to facilitate more detailed inspection of individual features.

Based on the number, location and type of any potential roost features, structures and trees were categorised as having negligible, low, moderate or high potential for roosting bats, or confirmed roost where direct evidence of bat presence was encountered. Evaluation of roost potential is necessarily subjective and relies on the professional judgment of the surveyor; however, Tables 5 and 6 provide a useful guide to how this is informed.

Table 6: Examples of characteristics that inform assessment of roost potential

Status	Typical characteristics
Negligible potential	• Modern construction / immature trees • Lack of access points for bats • Situated within very poor quality foraging habitat • High levels of external lighting
Low potential	• Small number of minor hole / crevice features suitable for opportunistic roosting • Lack of roof voids or small cluttered roof spaces • Features obscured by dense cobwebs • Unlikely to support breeding or hibernating bats • Situated within poor quality foraging habitat
Moderate potential	• One or more hole / crevice features suitable for roosting, e.g. damaged soffits, uneven roof tiles • Access into large, dark internal spaces such as roof voids • Trees with small fissures and crevices in dead wood suitable for day roosting • Situated within or near to moderate/good quality foraging habitat

Status	Typical characteristics
High potential	• Old buildings / mature or veteran trees • Trees with woodpecker holes or deep fissures and crevices in dead wood • Structures with large, uncluttered roof voids • Traditional brick, stone or timber framed barns • Features suitable for large numbers of bats and/or several different species • Types of structure suitable for hibernation, e.g.caves, tunnels, ice houses etc • Low level of disturbance by humans • Little / no external lighting • Situated within good quality foraging habitat
Confirmed Roost	Bats seen or heard within the roost feature during the survey Bat droppings, particularly if piled rather than scattered Feeding remains such as moth wings Existing record of roost at that location

Table 7: Guidance for assessing the overall value of potential development sites for bats (Collins (ed), 2016)

Site Status	Description
Increasing site value for bats ↓	• No features likely to be used by bats • Small number of potential roost sites but unlikely to be suitable for maternity roosts or hibernacula • Isolated habitat that could be used by foraging bats • Isolated site not connected by prominent linear features to suitable other/adjacent foraging habitats • Several potential roost sites in buildings, trees or other structures • Habitat suitable for foraging bats (e.g. trees, water, scrub, grassland present) • Site is connected with the wider landscape by features that could be used by foraging/commuting bats (e.g. gardens backed by scrub or line of trees) • Buildings, trees or other structures (e.g. caves or underground structures) of particular significance for roosting bats • Site includes high quality foraging habitat (e.g. broadleaved woodland, tree-lined watercourses, parkland with mature trees and rough grass) • Site is connected with the wider landscape by strong linear features that could be used by commuting bats (e.g. hedgerows, river valleys) • Site is close to known roosts • Bats recorded or observed using an area for foraging or commuting close to a potential roost

APPENDIX D : Botanical Species

Species	Common name
Acer pseudoplantus	Sycamore
Achillea millefolium	Yarrow
Arrhenatherum elatius	False oat grass
Betula pendula	Silver birch
Buddleja sp.	Buddleia
Cirsium arvense	Creeping thistle
Cotoneaster sp.	Cotoneaster
Crataegus monogyna	Hawthorn
Cytisus scoparius	Broom
Dactylis glomerata	Cock's-foot
Equisetum	Horsetail
Fallopia japonica	Japanese knotweed
Fraxinus excelsior	Ash
Holcus lanatus	Yorkshire fog
Impatiens glandulifera	Himalayan balsam
Jacobaea vulgaris	Common ragwort
Juncus sp.	Rush
Lotus corniculatus	Bird's foot trefoil
Petasites sp.	Butterbur
Phragmites	Common reed
Plantago lanceolata,	Ribwort plantain
Plantago major	Broadleaved plantain
Poa sp.	Meadow grass
Prunus sp.	Cherry
Rosa canina	Dog rose
Rubus fruticosus	Bramble
Salix sp.	Willow
Sambucus nigra	Elder
Sorbus aucuparia	Rowan
Ulex europaeu	Gorse
Urtica dioica	Common nettle

APPENDIX E : Site Photographs

No.	Description	Photograph
1	Site overview	
2	Building and associated hardstanding	
3	Semi-improved grassland	

No.	Description	Photograph
4	Willow scrub	
5	Bramble scrub	
6	Introduced shrub	

No.	Description	Photograph
7	Ephemeral/Short Perennial	
8	Japanese knotweed within scrub	
9	Himalayan balsam growing on the bank of Dob Sike.	

No.	Description	Photograph
10	Ditch and adjacent hawthorn scrub	
11	Dob Sike	