



PRELIMINARY ECOLOGICAL APPRAISAL

Land at Doncaster Road, Goldthorpe, Rotherham

May 2022

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Land at Doncaster Road, Goldthorpe, Rotherham

A report for

Graham Wrightson

Wrightson Associates Ltd
31 Greenwood Avenue
Hunsworth
Cleckheaton
BD19 4DY

Report authors



PENNINE Ecological

1a Turnlee Road
Glossop
Derbyshire
Tel. 07883438666

Email: stuart@pennineecological.co.uk

Web: www.pennineecological.co.uk

Stuart Macpherson BSc (Hons), MSc, ACIEEM.

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PART 1 INTRODUCTION:

1.1 REASONS FOR SURVEY:

PENNINE Ecological have been commissioned by Graham Wrightson (Wrightson Associates Ltd) to undertake a Preliminary Ecological Appraisal on an area of land south of Doncaster Road, Goldthorpe, Rotherham, South Yorkshire.

The study includes a vegetation survey and an assessment for potential protected species issues. The report includes a full evaluation of the ecological significance of the survey findings and recommendations for further surveys if appropriate.

The survey is required to support proposals to develop the site into a Lidl supermarket. The red line boundary of the site is shown below in Figure 1.



Figure 1 - Red line boundary of the planning application.

1.2 SITE LOCATION:

The site is located immediately south of Doncaster Road and east of High Street in the village of Goldthorpe, Rotherham. The immediate surrounding environment comprises residential housing, a small supermarket, shops and associated infrastructure.

The sites central National Grid Reference is NGR: SE 46237 04335.

The site location and the habitats identified within the site are provided in Map 1, Appendix 1. Photographs are provided in Appendix 2.

1.3 SITE STATUS:

The Multi Agency Geographical Information Centre www.magic.gov.uk was referred to in respect of statutory sites, priority habitats, great crested newt (GCN) licence returns, and European Protected Species Mitigation Licenses (EPSML) issued in respect of GCN and bats.

May 2022 Report Update

Following review / comment by Katie Lawrence (Barnsley Metropolitan Borough Council's Planning Ecologist) in an email dated 22nd April 2022, Katie requested the inclusion of species only desk study data within this report. PENNINE Ecological requested the data from Sheffield Biological Records Centre (SBRC) which was received on the 19th of May 2022. Records provided by the local records centre were within 1km of the central point of the site, SE 46237 04335. A review of the data was undertaken and is provided in section 1.3.3 of this report.

1.3.1 Statutory Sites:

Dearne Valley Wetlands Site of Special Scientific Interest (SSSI) is located to the south and southwest of the site. The SSSI is comprised of a number of components within which there are large areas of open water and associated wetland, and woodland habitat. It is designated for its nationally important numbers and assemblages of breeding and non-breeding birds. The closest SSSI component is 1.2km south of the planning application site.

The SSSI Impact Risk Zones¹ (IRZ's) has been reviewed and due to the nature, scale, and location of the development i.e., within an already urban environment, consultation with Natural England is not required.

1.3.2 Non-Statutory Sites (Local Wildlife Sites):

Details of non-statutory sites were not sought from the local records centre given the lack of ecological connectivity between the site and any Local Wildlife Sites (LWS) likely to be present either within the site's red line boundary or within 500m.

¹ The Impact Risk Zones (IRZs) are a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks posed by development proposals to: Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites

1.3.3 Protected Species / Habitat Data:

a) Local Records Centre Data

A summary of the desk study received on the 19th of May 2022 from Sheffield Biological Records Centre is provided below (all records are provided in Appendix 3).

Of the 315 records within 1km (percentages are of the total number of records);

- 263 (83%) records of 39 species, of which
 - Five are listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).
- 15 (4.7%) are terrestrial mammal, of which
 - 12 are bat records (of two species; common pipistrelle and noctule)
 - 2 are hedgehog
 - 1 brown hare.
- 15 (4.7%) are amphibian records, of which
 - Four are great crested newt (the nearest great crested newt record is approximately 885m south of the site at SE4660403527).
- 12 (3.7%) are flowering plant records
- 4 (1.2%) are butterfly records
- 6 (1.8%) are moth records

b) MAGIC

The nearest EPSML is approximately 4.2km north-east of the site. The licence was in respect of a natterer's bat roost, and it expired in 2017.

There are no protected or notable habitats within the site's red line boundary. Within 500m of the site there are three deciduous woodland parcels to the west and north-west, the closest being approximately 170m west along a disused railway line/cutting. Deciduous woodland is listed in the Priority Habitat Inventory², however, due to residential housing there is no ecological connectivity to the site.

1.4 SURVEY CONSTRAINTS:

The survey was undertaken outside of the optimal botanical survey period thus some flowering plant species may not have been readily identifiable. However, enough survey information was gathered in order to be able to define the broad habitat types thus the timing of the survey is not seen as a significant limitation to the survey's findings, or the recommendations included later within this report.

All parts of the site were accessible and there were no additional constraints to the survey.

² This is a spatial dataset that describes the geographic extent and location of Natural Environment and Rural Communities Act (2006) Section 41 habitats of principal importance.

PART 2 SURVEY RESULTS:

2.1 EXTENDED PHASE 1 HABITAT SURVEY:

2.1.1 Extended Phase 1 Habitat Survey Methodology:

An Extended Phase 1 Habitat Survey (JNCC, 2016) of the survey area was undertaken on 8th December 2021. The sites' habitats were fully mapped, and higher vascular plant species (where present) were recorded and given abundance values according to the standard DAFOR scale where:

D	=	Dominant
A	=	Abundant
F	=	Frequent
O	=	Occasional
R	=	Rare

Where appropriate the above values can be prefixed by the letter L (locally) or V (very), to provide more subtle biogeographical data.

2.1.2 Habitats Present:

A2.1 Dense scrub
A3.1 Parkland/Scattered trees – broad-leaved
A3.2 Coniferous
B4 Improved grassland
C3.1 Tall ruderal
J2.2 Species-poor hedgerow
J2.4 Fence
J2.3.5 Wall
J3 Ephemeral
J5 Hard standing

2.1.3 General Description:

The site, at its largest extent, is approximately 130m by 105m. Having previously been the location of Goldthorpe Primary School, which was demolished in 2015/2016, the site comprised habitats typical of a brownfield site e.g., ephemeral, tall ruderal, scrub and hard standing. On review of historical aerial photography, the extent of the hard standing, previously a car park and a playground, has remained. However, the amenity grassland areas have encroached, scrub has increased thus the site has become a mosaic of habitats, all of which generally have very limited intrinsic botanical interest or ecological value.

Buddleia and bramble both dominated the areas of dense scrub, particularly in the east and northern sections of the site. Buddleia was widespread and colonising throughout the site as both mature and immature specimens were recorded. Cherry (A) and goat willow (A) were also recorded within the scrub.

Species recorded within the areas of ephemeral and tall ruderal habitat included the following (note there was some crossover between the two habitats): white clover (A), yarrow (F), great willowherb (F), common sow thistle (F), common knapweed (F), spear thistle (F), cow parsley (F), selfheal (F), common reed (LF), oxeye daisy (O), spear thistle (R), salad burnet (R), black horehound (O) and greater plantain (R). Many of the grass species recorded within the improved grassland (see below) were also recorded within the tall ruderal habitat.

The improved grassland (formerly the school playing field) was dominated by common grass species such as common bent (F), annual meadow grass (F), cock's foot (F), red fescue (F), Yorkshire fog (F) and meadow foxtail (F).

Tree species recorded on site included ash (O), cherry (O), apple species (O), rowan (O), field maple (R) and sycamore (R). All trees were semi-mature to mature.

The site boundaries are comprised of redbrick wall and metal railing fence (the redline boundary reflects the location of the wall and as such the latter is not visible on Map 1, Appendix 1).

2.1.4 Target Notes:

Target Note 1:

Tall ruderal habitat was dominant throughout the site. A transition was recorded with ephemeral habitat (Target Note 2) and many of the species recorded (refer to 2.1.3) were recorded in both habitat types.

Target Note 2:

Ephemeral habitat was recorded in two locations. As described in Target Note 1, there was overlap in the species recorded within the tall ruderal habitat.

Target Note 3:

Dense scrub dominated by buddleia and bramble were recorded predominantly on the fringes of the site. However, young, and immature specimens of buddleia were recorded throughout the site and often as individuals thus these are not mapped on Map 1, Appendix 1.

Target Note 4:

Hard standing dominated the site, although small areas of scrub had begun to colonise (refer to Target Note 3).

Target Note 5:

Unmanaged, species-poor garden hedgerow formed the southeastern boundary of the site.

2.2 PROTECTED SPECIES SURVEYS:

During the Phase 1 Habitat Survey additional surveys were undertaken where appropriate for the presence of other potential protected species. The following surveys were undertaken.

2.2.1 Badger Survey:

Survey Methodology:

A badger survey was undertaken of the site. The badger survey used standard techniques for establishing the use of the site by badger (Roper, 2010), and includes searches for evidence of badgers including:

- Setts
- Pathways
- Footprints
- Latrines
- Foraging areas
- Scratching posts
- Boundary searches for runs, pathways and latrines.

The survey results are outlined below.

Results:

Sett Search:

The survey found no setts on site.

Search for Foraging Signs and Pathways:

The site was thoroughly searched for badger pathways and signs of foraging. No sign of badger activity was found therefore it can be concluded that the species is not using this area for foraging or commuting.

Boundary Search:

All of the boundaries of the site were walked and examined for potential runs, pathways, and latrines. The search found no evidence to suggest badger activity along any of the site boundaries.

The absence of any activity signs indicates that badgers are not entering the site. The absence of latrines indicates a lack of territorial activity in the near vicinity of the site.

2.2.2 Great Crested Newt

There were no ponds or waterbodies recorded within the site boundary. Furthermore, following a review of online mapping tools i.e., MAGIC, Google Maps, OS Maps, no ponds were identified within 250m of the site. The habitats surrounding the site are heavily urbanised and is considered sub-optimal great crested newt habitat thus the presence of the species on site is highly unlikely.

2.2.3 Bats

The preliminary bat roost assessment was undertaken on the same day as the PEA, 8th December 2021, following the methodology outlined in *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn.) Collins, J. Bat Conservation Trust (2016). All trees on site were assessed from ground level.

There were no buildings within the red line boundary thus no assessment is included within this report.

All trees were surveyed, and they were generally in good condition. No suitable features which could be used by roosting bats were identified.

The trees have been assessed as having negligible roost potential.

2.2.4 Breeding Birds

Breeding birds were evaluated by an assessment of the sites habitats to support breeding birds and any evidence of current or historic nesting. Habitats suitable for breeding birds could include but are not limited to scrub, hedgerows, and trees, all of which were recorded during the survey.

2.2.5 Other Protected Species:

Issues in relation to other potential protected species where no specific survey was undertaken are assessed in the following section.

PART 3 ECOLOGICAL EVALUATION & RECOMMENDATIONS:

3.1 EVALUATION OF SURVEY & RECOMMENDATIONS:

The following section evaluates the site in relation to statutory/non-statutory sites, protected species and species/habitats listed on the UK Biodiversity Action Plan Priority List, Section 41 Species/Habitats of Principal Importance in England (NERC) Act 2006, and the Barnsley Biodiversity Action Plan.

3.1.1 Statutory Sites:

Dearne Valley Wetlands SSSI at its closest point is 1.2km southwest of the site. The SSSI is designated for its bird populations and given the scale, location, and lack of ecological connectivity to the proposed site no impacts from the development are not anticipated and therefore no further assessment is required.

3.1.2 Non-Statutory Sites (Local Wildlife Sites):

The site has no known LWS within the site boundary. There may be LWS within 500m, however, this would require verification via a desk top study with the Local Records Centre.

3.1.3 Protected Species / Habitat Data (Local Record Centre Data):

Given the weighting of records to highly mobile species, in particular bird species, it is unlikely any of the species included within the desk study data will be present within the site. There is a distinct lack of ecological connectivity between the urban site and either aquatic or terrestrial habitat in which the species are likely to inhabit or use to commute to within the wider landscape.

3.1.4 Sites Habitats & High Plant Species:

The single, garden hedgerow on the sites' southeastern boundary is species poor and comprises introduced species thus it is not of botanical interest or value, and it does not qualify as a Section 41 habitat under the NERC Act (2006) nor is it 'important' under the Hedgerows Regulation (1997).

Recommendations: Habitats & Higher Plant Species:

There are no recommendations for further surveys.

In the interest of biodiversity enhancement, it is recommended that an area of proposed native species hedgerow planting is implemented (refer to Figure 2 on the following page for suggested location). This area is currently a combination of hard standing, scrub, or ephemeral habitat. Planting will be at 2m centers, fitted with rabbit guards and at the following approximate proportions.

Species:	Approximate percentage of total planting area.
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Hawthorn (<i>Crataegus monogyna</i>)	20%
Holly (<i>Ilex aquifolium</i>)	20%
Gorse (<i>Ulex europaeus</i>)	20%
Hazel (<i>Corylus avellana</i>)	15%
Guelder-rose (<i>Viburnum opulus</i>)	10%
Dog-rose (<i>Rosa canina</i>)	10%
Rowan (<i>Sorbus aucuparia</i>)	5%

Additionally, it is recommended that approximately 550 square meters is planted with a general purpose meadow mixture e.g., Emorsgate seed mixture 2 (EM2) which provides a good foundation for both landscaping and habitat creation and is suitable for a variety of soil types (refer to Figure 2).

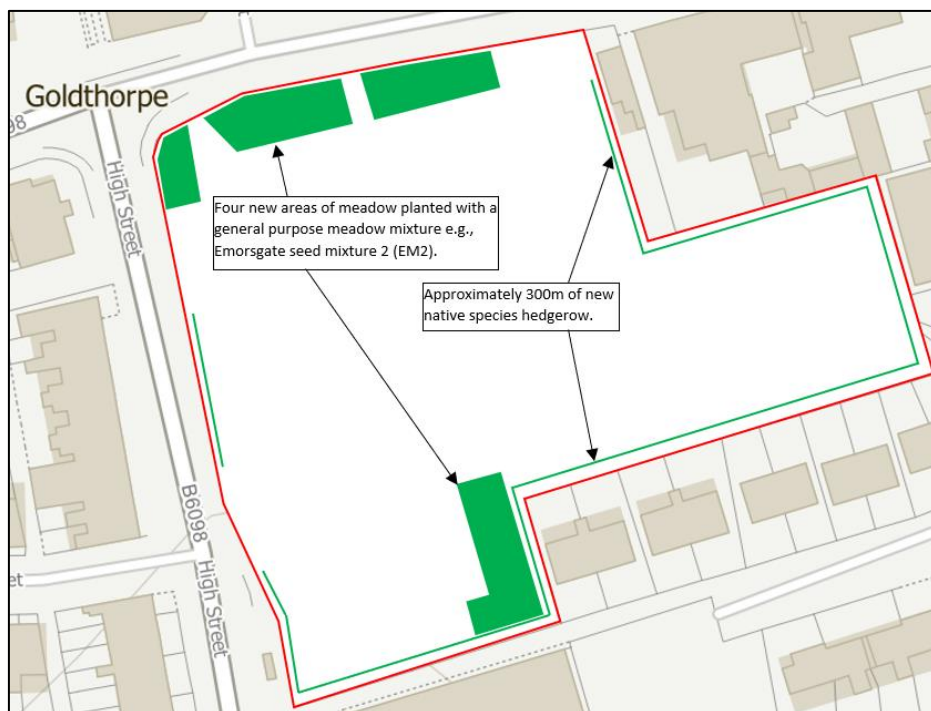


Figure 2 - Recommendations for new native hedgerow and meadow planting.

3.1.5 Protected Species:

Badgers:

Badgers are protected under Schedule 6 of the Wildlife and Countryside Act 1981, and under the Protection of Badgers Act 1992, which prohibits deliberate interference with the animal or its sett.

Recommendations: Badgers

There are no issues in relation to badgers. No further survey work is required.

Bats:

Bats are comprehensively protected by European legislation.

Recommendations: Bats

All trees were found to be of negligible potential to support roosting bats.

No further survey work is required.

Birds:

All breeding birds (*with only minor exceptions*) are protected under the Wildlife and Countryside Act (1981) as amended. The proposal will include clearance of potential breeding bird habitats such as trees and scrub.

Recommendations: Birds

No strategic bird surveys are required. Any removal of trees or scrub should take place outside of the breeding season, i.e., between September 1st and February 28th. Following the removal of any trees or scrub, piles of brash should be removed from the site, failure to do so could provide potential nest sites if left in situ until the following breeding season.

If removal of trees or scrub is envisaged during the breeding season, then checks should be made to establish any nesting or breeding activity, prior to removal.

Other Protected Species

No further ecological constraints were identified in relation to any other protected species.

PART 4 REFERENCES:

4.1 REFERENCES:

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

DEFRA (2006) *Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 – Habitats and Species of Principal Importance in England*. DEFRA/Natural England

Joint Nature Conservancy Council (2016) *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit*. Nature Conservancy Council.

Roper, T. J. (2010) *Badger*. New Naturalist Library – Collins.

Stace, C., (1997) *New Flora of the British Isles (Second edition)*. Cambridge University Press.

Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. *The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain*. British Birds 114: 723-747

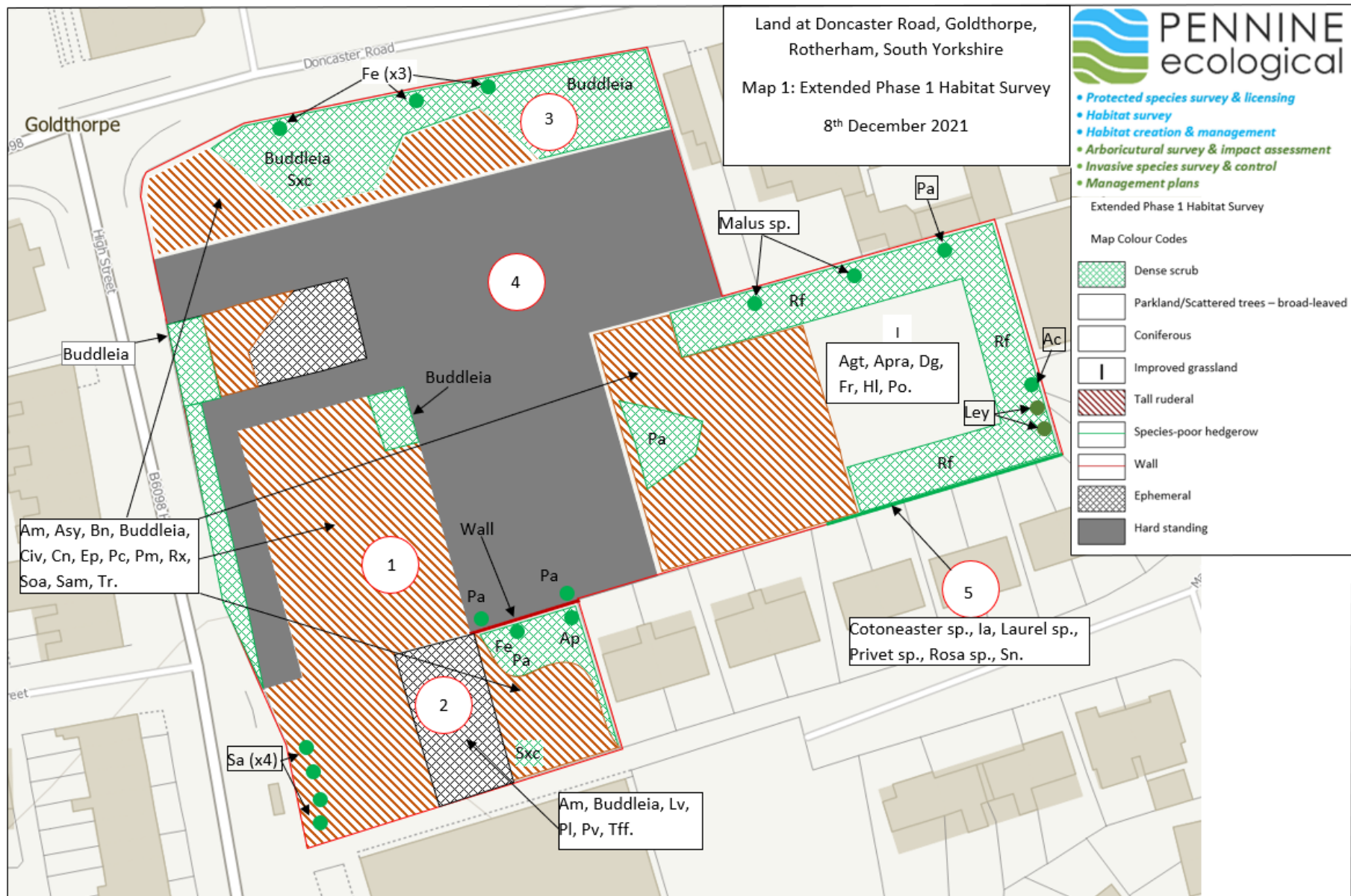
The Barn Owl Trust (2012). *Barn Owl Conservation Handbook*. Pelagic Publishing, Exeter.

Web Sites:

Google Earth – [last accessed 13/12/2021]

Natural England – Nature on the Map (MAGIC). <https://magic.defra.gov.uk/MagicMap.aspx>
[last accessed 13/12/2021]

Appendix 1, Map 1: Extended Phase 1 Habitat Map (refer to the following page for species codes)



Accompanying species codes for Map 1 (previous page).

Standard Phase 1 Species Codes: (Nomenclature follows Stace, C. 1997)		
Ac	<i>Acer campestre</i>	Field maple
Agt	<i>Agrostis stolonifera</i>	Common bent
Apra	<i>Alopecurus pratensis</i>	Meadow foxtail
Am	<i>Achillea millefolium</i>	Yarrow
Ap	<i>Acer pseudoplatanus</i>	Sycamore
Asy	<i>Anthriscus sylvestris</i>	Cow parsley
Bn	<i>Ballota nigra</i>	Black horehound
Civ	<i>Cirsium vulgare</i>	Spear thistle
Cn	<i>Centaurea nigra</i>	Common knapweed
Dg	<i>Dactylis glomerata</i>	Cock's foot
Ep	<i>Epilobium hirsutum</i>	Great willowherb
Fe	<i>Fraxinus excelsior</i>	Ash
Fr	<i>Festuca rubra</i>	Red fescue
Hl	<i>Holcus lanatus</i>	Yorkshire fog
Ia	<i>Ilex aquifolium</i>	Holly
Ley	<i>Cupressis x Leylandii</i>	Leylandii
Lv	<i>Leucanthemum vulgare</i>	Ox-eye daisy
Malus	<i>Malus</i> sp.	Apple
Pa	<i>Prunus avium</i>	Cherry
Pc	<i>Phragmites australis</i>	Common reed
Pl	<i>Plantago lanceolata</i>	Ribwort plantain
Pm	<i>Plantago major</i>	Greater plantain
Po	<i>Poa annua</i>	Annual meadow grass
Pv	<i>Prunella vulgaris</i>	Selfheal
Rx	<i>Rumex obtusifolius</i>	Broad-leaved dock
Sa	<i>Sorbus acuparia</i>	Rowan
Soa	<i>Sonchus oleraceus</i>	Common sow thistle
Sam	<i>Sanguisorba minor</i>	Salad burnet
Sn	<i>Sambucus nigra</i>	Elder
Sxc	<i>Salix caprea</i>	Goat willow
Tff	<i>Tussilago farfara</i>	Colt's foot
Tr	<i>Trifolium repens</i>	White clover

Appendix 2: Site Photographs 8th December 2021



Photograph 1: Southwest corner of the site. Rowan trees and tall ruderal habitat visible (Target Note 1).



Photograph 2: Ephemeral habitat in the southern section of the site (Target Note 2)



Photograph 3: Dense buddleia and goat willow scrub in the northern section of the site (Target Note 3). Hard standing (Target Note 4) visible in the foreground. Three semi-mature ash trees within the boundary are visible.



Photograph 4: Photograph taken from the approximate centre of the site looking westwards, large area of hard standing clearly visible (Target Note 4).



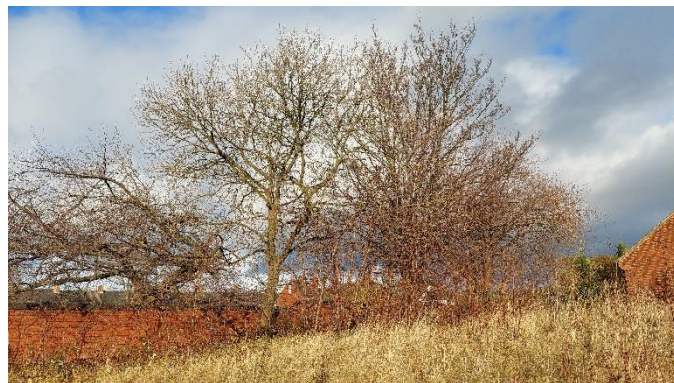
Photograph 5: Species-poor garden hedgerow in the southeastern section of the site (Target Note 5). Bramble scrub, field maple and leylandii visible left of centre. Residential properties are beyond, and south of the site.



Photograph 6: Overview of site looking southeast, photograph taken from the northwestern corner.



Photograph 7: Improved grassland (formerly a sports playing field) in the eastern section of the site. Malus (apple) trees visible, these are within the red line boundary.



Photograph 8: Cherry, ash, sycamore trees and red brick wall which recorded in the south of the site. Tall ruderal in the foreground of the photograph.



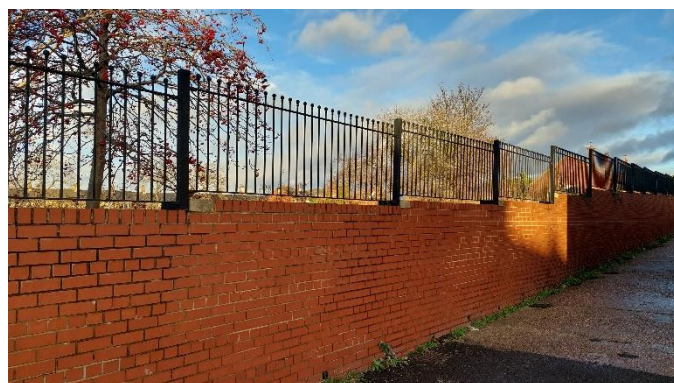
Photograph 9: Cherry trees and red brick wall, photograph taken to the north of photograph 8.



Photograph 10: Photograph taken outside of red line boundary on Doncaster Road but illustrates dense buddleia scrub in the northern section of the site.



Photograph 11: Western boundary (photograph taken from High Street) showing the red brick wall and scrub immediately adjacent to and within the red line boundary.



Photograph 12: Red brick wall and metal railing forming the southern boundary of the site.

Appendix 3: Desk Study Data (received 19th May 2022)

Species	Number of Records
Barn owl	2
Black-headed gull	2
Brown hare	3
Bullfinch	1
Cinnabar	1
Common frog	5
Common pipistrelle	2
Common spotted orchid	2
Common toad	3
Cornflower	5
Cuckoo	2
Dingy skipper	2
Dunnock	14
Fieldfare	2
Ghost moth	1
Grasshopper warbler	1
Great crested newt	4
Green woodpecker	6
Greenfinch	9
Grey partridge	5
Hedgehog	2
Hobby	1
House martin	9
House sparrow	10
Kestrel	9
Lapwing	1
Latticed heath	2
Linnet	9
Mallard	2
Meadow pipit	1
Mistle thrush	5
Moorhen	2
Noctule	2
Osprey	1
Pipistrelle species	5
Redwing	3
Reed bunting	12
Rook	3
Sedge warbler	3
Shaded broad-bar	2
Skylark	7
Small heath	2
Smooth newt	3
Song thrush	19
Southern marsh-orchid	5
Sparrowhawk	6
Starling	10
Stock dove	2
Swallow	10
Swift	7
Tree sparrow	1
Unnamed bat species	3

Species	Number of Records
Whitethroat	16
Willow tit	1
Willow warbler	31
Woodpigeon	5
Wren	16
Yellowhammer	3