
EXTENDED PHASE 1 HABITAT SURVEY

SHAW LANE, CARLTON,
BARNESLEY, SOUTH YORKSHIRE

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APPENDIX A PHASE 1 HABITAT MAP

1.0 INTRODUCTION

Site Information

- 1.1 Rachel Hacking Ecology Limited was commissioned in 2021 by Network Space to carry out an Extended Phase 1 Habitat Survey at Shaw Lane, Carlton, Barnsley. The site is situated on the north of Shaw Lane, in Carlton (O.S. grid reference: SE 37404 10325 – see Figure 1). The proposed development site currently comprises an Arable field with a band of tall ruderal herb on the site boundary. To the north and west of the site lies further arable land with the disused Barnsley Canal beyond that to the west. To the south of the site lies further agricultural land and to the east lies a commercial development across a disused railway line.
- 1.2 An Extended Phase 1 Habitat Survey is required to provide an overview of the habitats present within the site and to assess any potential protected species issues on the site.



Figure 1 showing the location of the site

Description of Development

- 1.3 The site will be the subject of a planning application for a residential development on the site, with associated access, landscaping and parking.

Summary of Previous Work

- 1.4 The site was surveyed as a part of a larger survey area in 2019 (see *Extended Phase 1 Habitat Survey of land north of Shaw Lane, Carlton, Barnsley, South Yorkshire 2019* – Rachel Hacking Ecology Ltd).

Biodiversity in Planning

- 1.5 Biodiversity is a material consideration, and Local Planning Authorities (LPAs) have a requirement to consider biodiversity and protected species when determining planning applications. Section 15 of the National Planning Policy Framework (February 2019) gives specific reference to minimising the impacts of development on biodiversity. Local and Neighbourhood plans also provide guidance towards protecting and enhancing biodiversity, including priority habitats and notable species.



2.0 METHODOLOGY

Extended Phase 1 Habitat Survey

- 2.1 A Phase 1 Habitat survey was undertaken to JNCC standards (JNCC, 2010). The site was walked, and each habitat was assigned a Phase 1 habitat category. Species lists were taken at locations of botanical interest. All botanical nomenclature follows Stace, 2019. A Phase 1 map was produced showing habitat boundaries.
- 2.2 During the Extended Phase 1 survey, the habitats were assessed for their potential to support protected species. This included, for example, looking for signs of Badger activity (e.g. setts, paths, latrines and hairs on fences), assessing any waterbodies on site or near the site for their potential to support Great Crested Newt.
- 2.3 The site was also surveyed for invasive, non-native plant species such as Japanese Knotweed and Giant Hogweed.

Personnel and Seasonal Timing

- 2.4 Kate Reed (Senior Ecologist) carried out the daytime bat survey on the 6th July 2021. Kate is fully experienced in conducting habitat and protected species surveys and is fully trained. July is an optimal time of the year for botanical work, and protected species assessments can be undertaken at any time of year. The weather at the time of the survey was dry and bright.

Survey Constraints

- 2.5 The site was fully accessible. There were no constraints to the survey.



3.0 RESULTS

Description of Habitats

- 3.1 The Phase 1 Habitat Map can be found at the back of the report. The habitats on the proposed development site are described below.

Arable

- 3.2 The dominant habitat on site is an arable crop of Wheat *Triticum aestivum* (see Photograph 1).



Photograph 1 showing the Arable crop

Tall Ruderal Herb

- 3.3 The site boundaries are marked with a band of tall ruderal herb (see Photographs 2 and 3). Frequently occurring species include Rosebay Willowherb *Chamaenerion angustifolium*, False Oat-grass *Arrhenatherum elatius*, Cleavers *Galium aparine*, Barren Brome *Anisantha sterilis*, Creeping Thistle *Cirsium arvense*, Perennial Rye Grass *Lolium perenne*, Bramble *Rubus fruticosus* agg., Quaking grass *Briza media* and Common Nettle *Urtica dioica*. Less frequently occurring species include Cut-leaved Crane's-bill *Geranium dissectum*, Scarlet Pimpernel *Lysimachia tenella*, Mugwort *Artemisia vulgaris*, Yarrow *Achillea millefolium*, Colt's-foot *Tussilago farfara* and Hedge Woundwort *Stachys sylvatica*.





Photograph 2 showing a section of the tall ruderal herb on the northern boundary



Photograph 3 showing a section of the tall ruderal herb on the eastern boundary

Ephemeral Short Perennial

- 3.4 The site access track is an area of ephemeral short perennial (see Photograph 4). Species here include Annual Meadow-grass *Poa annua*, Soft Brome *Bromus hordeaceus*, Perennial Rye-grass *Lolium perenne*, Creeping Bent *Agrostis stolonifera*, Creeping Buttercup *Ranunculus repens*, Wavy Bittercress *Cardamine flexuosa*.





Photograph 4 showing the ephemeral short perennial access track

Open Water

- 3.5 A small pond is present in the centre of the site (see Photograph 5). The water body shallow, is overgrown with tall ruderal vegetation, and it is heavily shaded by trees. Aquatic vegetation within the pond includes Yellow Iris *Iris pseudacorus* and Watercress *Nasturtium officinale* with Hemlock *Conium maculatum*, Teasel *Dipsacus fullonum*, Ferns, Yellow Vetch *Vicia* sp. and common Nettle *Urtica dioica* on the banks.



Photograph 5 showing the overgrown pond

Intact Species-poor Hedgerows and Other Boundaries

- 3.6 A fence marks much of the site boundary, sections of hedgerow are also present (see Photograph 6). These are composed of Blackthorn *Prunus spinosa*, Hawthorn

Crataegus monogyna, Elder *Sambucus nigra*, Field Rose *Rosa arvensis*, Cherry *Prunus* sp., Bramble *Rubus fruticosus* agg. and Bracken *Pteridium aquilinum*. A section wet ditch is present on the southern boundary, this is heavily shaded by the hedgerow, filled with leaf litter and holds little water (see Photograph 7)



Photograph 6 showing a section of hedgerow



Photograph 7 showing a section of the wet ditch

Scattered Trees

- 3.7 A small number of semi-mature scattered trees occur on the site (see Photograph 8). Species include Ash *Fraxinus excelsior*, Willow *Salix* sp., Cherry *Prunus* sp. and Hawthorn *Crataegus monogyna*.



Photograph 8 showing some of the scattered trees

Spoil

- 3.8 A small spoil heap of manure is present by the access track. This is composed of vegetation and earth and has been mapped as spoil.



PROTECTED SPECIES

Great Crested Newt

- 3.9 Great Crested Newt *Triturus cristatus* is a European Protected Species under the Conservation of Habitats and Species Regulations 2019 (Amendment) (EU Exit) and the species is fully protected under the Wildlife and Countryside Act 1981 (as amended).
- 3.10 One pond occurs on the site and three further ponds occur within 250m of the site boundary, a disused section of canal also lies within 250m of the site boundary. The nearest pond lies 100m to the south, the second pond lies 200m to the south and the third lies 215m to the east of the site. The onsite pond is a small waterbody which is heavily overgrown with aquatic vegetation and shaded by trees. The two ponds to the south of the site lie across Shaw Lane which is a barrier to dispersal. The third pond that lies to the east is a linear waterbody on the edge of the industrial estate. The disused canal is stocked with fish and therefore is suboptimal habitat for GCN. None of the ponds hold direct connectivity to the site.
- 3.11 The site supports suitable Great Crested Newt terrestrial habitat in the band of tall ruderal herb and the hedgerow bases, and wet ditch. These habitats provide cover from predation as well as foraging and commuting opportunities for Great Crested Newts.

Bats

- 3.12 All bat species are European Protected Species. This is implemented in the UK through the Conservation of Habitats and Species Regulations 2019 (Amendment) (EU Exit). Bats are also protected under The Wildlife and Countryside Act 1981 (as amended).
- 3.13 No buildings exist on the site. The trees on site were assessed from the ground for their potential to support a bat roost, no potential roosting features were found associated with any of the trees on the site. The site boundaries particularly the eastern boundary with the former railway line offer potential bat foraging and commuting habitat.

Badger

- 3.14 Badgers *Meles meles* are protected under the Protection of Badgers Act 1992 and The Wildlife and Countryside Act 1981 (as amended). These Acts, for example, make it illegal to disturb a Badger whilst it is in a sett, to kill, injure or take a Badger and to obstruct the entrance to a Badger sett.
- 3.15 Mammal holes were located on the western boundary within the hedgerow. The majority of the holes are small and likely to be used by Rabbit as they were found in association within Rabbit dropping as and no evidence of Badger was found such as hairs. A small number of the holes are larger appear to be the correct shape to be used by Badger, no evidence to suggest that these holes are currently used by Badger was found during the survey, a Fox scat was found in association with one of the holes. A small number of snuffle holes and other evidence of mammal foraging were found on the site.



Nesting Birds

- 3.16 All bird species are protected at their nest under the Wildlife and Countryside Act 1981 (as amended).
- 3.17 The scattered trees and hedgerows on site provide suitable nesting habitat for birds.

INVASIVE SPECIES

- 3.18 No non-native invasive plant species as listed on Schedule 9 Part II (plants) of The Wildlife and Countryside Act 1981 (as amended) occur on the site.

PROTECTED SITES

- 3.19 No statutory protected sites lie on the site or immediately adjacent to the site boundary. The nearest, Deane Valley Wetlands Site of Special Scientific Interest (SSSI), lies to the east of the site, and at the closest point lies 35m to the southwest across Shaw Lane, this area is also designated as Carlton Marsh Local Nature Reserve (LNR). Five statutory protected sites are located within 4.5km of the site:
- Notton Wood LNR which lies 2.9km to the north-west of the site.
 - Dearne Valley Park LNR which lies 3.2km to the south-west of the site.
 - Chevet Branch Line LNR which lies 3.7km to the north-west of the site.
 - Carlton Mains Brickworks SSSI which lies 4km to south-west.
 - Hawpark Wood LNR which lies which lies 4.3km to the north of the site.
- 3.20 The site itself lies within an SSSI Impact Risk Zone which lists certain types of development that may negatively impact on designated sites nearby. For the location of the site, residential development of more than 10 units in a rural location and more than 50 units in a non-rural location are listed as a concern.
- 3.21 No non-statutory protected sites could be found on the site or adjacent to the site.

4.0 ASSESSMENT

Habitats

- 4.1 The Phase 1 Habitats present on the site are common throughout the UK. No nationally rare or locally rare plant species were located during the Extended Phase 1 Habitat Survey.
- 4.2 The site offers limited ecological value. The site supports an area of Arable land with a small pond in the middle and tall ruderal herb and scrub on the field margins. The site boundaries are marked with fences, hedgerows and a small number of scattered trees. The dominant habitat on the site, the arable crop is of limited ecological value it offers little cover for wildlife and a limited source of nectar and pollen for invertebrates. The boundary habitats and the pond are the most ecologically valuable habitats. They provide a nectar source, cover from predation, and foraging and overwintering opportunities. The hedgerows, scrub and scattered trees also offer nesting habitat for birds.

Development Context

- 4.3 The proposed development will involve the loss of the Arable field, the pond and small sections of the boundary habitats, the boundary habitats will be retained where possible. Given the low ecological value of the habitats to be lost and the low-impact nature of the development, no specific habitat mitigation is considered necessary. The provision of garden planting and landscaping on the site has potential to increase the biodiversity value of the site.

PROTECTED SPECIES

Great Crested Newt

- 4.4 One pond exists on the site, this pond is a small waterbody that is shallow, overgrown with vegetation and heavily shaded by trees, the pond is also isolated in the middle of an arable field and holds no connectivity with suitable Great Crested Newt terrestrial habitat. Three other ponds exist within 250m of the site the nearest lies 100m from the site. None of these ponds hold habitat connectivity with the site lying south across Shaw Lane or within the industrial estate to the east. The boundary habitats offer suitable terrestrial habitat for Great Crested Newt. However, given the lack of connectivity to breeding habitat in the locality, no further survey work is required, and Great Crested Newt is not considered to be a constraint on development at this time.

Bats

- 4.5 No buildings exist on the site. The trees on site were assessed and offer no potential roosting features for bats were found. The site boundaries particularly the eastern boundary with the former railway line offer potential bat foraging and commuting habitat. It is recommended any artificial lighting is directed away from the trees. No further bat survey work is considered necessary.

Badger

- 4.6 Mammal holes were located on the western boundary of the site, the majority of the holes are small and considered to be used by Rabbit. A small number of holes are the right size and shape to be Badger, no evidence of activity such recent digging, hairs or paw prints was found in associated with any of the holes, a fox scat was found in associated with one of the holes. No active Badger sett was located on the site or immediately adjacent to the site. A small number of snuffle holes were found on site, there was no evidence to suggest these were created by Badger, no other evidence of Badger/mammal activity was located on the site. Badgers are not considered to be a constraint on development at this time. Although care should be taken when clearing any vegetation and should any large mammal holes be discovered an ecologist should be contacted for advice.

Nesting Birds

- 4.7 The site supports suitable nesting habitats for birds within the hedgerows, scrub and scattered trees. Nesting birds can be mitigated for by allowing no works to potential nesting habitats to be carried out within the bird nesting season (which is generally March – August) unless a nesting bird survey is undertaken first.

PROTECTED SITES

- 4.8 No statutory or non-statutory protected sites lie within the proposed development site or immediately adjacent. Six statutory protected sites lie within 4.5km of the site boundary. The nearest statutory protected site lies 35m to the south-east of the site across Shaw Lane. This is Deane Valley Wetlands SSSI and also Carlton Marsh LNR. Shaw Lane is considered to offer a suitable barrier habitat between the protected site and the proposed development. All other protected sites lie over 2.9km from the site at these distances, and with barrier habitats between the surrounding sites and the proposed development site, there is expected to be no deleterious impact on the protected sites from the development.
- 4.9 The site lies within an SSSI Impact Risk Zone. For the location of the site, residential development of more than 10 units in a rural location and more than 50 units in a non-rural location are listed as a concern. Natural England may need to be consulted as a part of the proposed development.

5.0 RECOMMENDATIONS

Summary of Findings

5.1 Protected species are a material consideration when a planning authority is considering a planning application. The presence of protected species, the effect of the proposed development and suitable mitigation, if required, must be established before planning permission can be granted. Following the findings from the Extended Phase 1 Habitat Survey, the following survey may be required:

- **Nesting Birds** - If any work to the woodland or hedgerows needs to be carried out within the bird nesting season (which is generally March to August), then a nesting bird survey will be required immediately prior to work commencing.

Habitat Enhancement

5.2 The following measures could be implemented to enhance the biodiversity value of the site:

- Where planting is proposed, this should include the provision of native and non-native flowering perennial, annual and shrub species, to provide a pollen and nectar source for invertebrates.
- Bird boxes and/or bat boxes could be erected where possible.
- Trees planting – where practical, native tree species should be planted.

6.0 REFERENCES

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APPENDIX A PHASE 1 HABITAT MAP

