

**Lowfield Farm
Bolton upon Dearne**

**Preliminary
Ecological Appraisal**

June 2018

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1 Introduction

- 1.1.1.1 This report presents the results of a preliminary ecological appraisal undertaken on land at Lowfield Farm, Bolton upon Dearne, S63 8GY. An aerial view of the site and its geographical context is shown in Figure 1. The site is centred on grid reference SE 46105 02622.
- 1.1.1.2 The aims of this assessment were to identify the habitat types present on the site, to assess the potential for protected / notable species to occur and to make any recommendations for further surveys or assessments which may be required to inform the proposed development which involves improvements to the existing car park and a car park extension.
- 1.1.1.3 A preliminary ecological appraisal survey including a bat scoping survey was conducted on 31st May 2018 by Gemma Longman ACIEEM. A desk-based study was also undertaken to obtain existing ecological records for the site and the surrounding area.

Figure 1: Aerial view of the site subject to survey (red area indicates the approximate area for the proposed development). Aerial Imagery dated 2016.



2 Methodology

2.1 Desk Study

2.1.1.1 An ecological data search was commissioned from Sheffield Biological Records Centre (SBRC) in order to identify any existing records of protected / notable species and non-statutory sites within 2km of the site. In addition, the following web sources were searched for statutorily protected sites and additional ecological data of most relevance:

- Multi-Agency Geographic Information for the Countryside (MAGIC).
- Ordnance Survey 1:25,000 mapping.
- Aerial imagery (dated 2016).

2.2 Preliminary Ecological Field Survey

2.2.1.1 A Preliminary Ecological Appraisal of the site was conducted on 31st May 2018 by Gemma Longman¹ ² ACIEEM in accordance with the standard survey methodology³ ⁴.

2.2.1.2 The habitats on the site were assessed and categorised in order to provide baseline information and subsequent interpretation of the ecological value of the site. In addition, the site was searched for evidence of protected / notable species and assessed in terms of its potential to support protected / notable species such as badger, great crested newt, water vole, reptiles and bat species.

2.3 Limitations

2.3.1.1 The survey was undertaken within the optimum season for Phase 1 habitat surveys (May to September/October). Overall, it is considered that there were no significant constraints to achieving the purpose of the assessment.

2.3.1.2 The weather conditions at the time of the survey were dry, wind Beaufort Scale 1 and 17°C with good visibility. There were no access restrictions during the survey.

¹ Natural England Class Licence Registration No. WLM-A34 - Level 1: 2017-27778-CLS-CLS (Bats).

² Natural England Class Licence Registration No. WML-CL08 2015-16801-CLS-CLS (Great Crested Newts).

³ JNCC, (2010), Handbook for Phase 1 habitat survey - a technique for environmental audit, ISBN 0 86139 636 7.

⁴ Chartered Institute of Ecology and Environmental Management (CIEEM). (2017). Guidelines for Preliminary Ecological Appraisal, Second Edition. December 2017. CIEEM, Winchester.

3 Results

3.1 Desk Study

3.1.1.1 Key information provided by SBRC is summarised below and included in Appendix 3. Species information can be provided upon request.

3.1.2 Statutory Sites.

3.1.2.1 There are no statutorily protected sites within 2km: The closest site, **Denaby Ings**; a Site of Special Scientific Interest (SSSI) is located 3.9 km southeast from the study site.

3.1.3 Non-Statutory Sites

3.1.3.1 There is one Non-Statutory site within the 2km search area; a Local Wildlife Site (LWS) **Bolton upon Dearne Wetlands** lies ~500m south east of the Non-Statutory site. This 2.52 ha LWS comprises marshy grassland, swamp and semi-improved neutral grassland.

3.1.4 Protected./ Notable Species Records

3.1.4.1 The key information provided by SBRC is summarised below. Please note that the paucity of records for any given species may be attributed to a lack of survey and recording input rather than a limited distribution or abundance of species within the area.

3.1.4.2 Amphibians

SBRC provided several records of toad, frog and smooth newt within the 2km search area and four records of great crested newts (GCN) within the radius. The closest GCN record is 1.2km north of the site.

3.1.4.3 Reptiles

SBRC provided one record of a grass snake within 2km of the site (recorded 500m from the site within Adwick Nature Reserve).

3.1.4.4 Birds

Bird records within the search radius include red-list species of conservation concern⁵ and/or bird species of principal importance in England⁶. Records include: skylark, teal, mallard, meadow pipit, swift, Canada goose, linnet, stock dove, cuckoo, house martin, greater spotted woodpecker, green woodpecker, yellowhammer, reed bunting, kestrel, snipe, swallow, common gull, lesser black-backed gull, black-headed gull, hearing gull, grasshopper warbler, corn bunting, reed bunting, yellow wagtail, curlew, willow tit, house sparrow, tree sparrow, grey partridge, red-legged partridge, willow warbler, reed warbler, garden warbler, sedge warbler, duncock, bullfinch, little grebe, gradwall, pintail, garganey, avocet, starling, whitethroat, redwing, song thrush, fieldfare, mistle thrush, barn owl (>1km north), lapwing (majority associated with Adwick Washlands, situated >700m east of the site), sparrowhawk (>1km north), osprey (1.4km north west of the site), peregrine falcon (>500m from site) and buzzard.

Bats

SBRC provided no records of bats within the site itself, but numerous records within the wider area the majority of which were recorded >1km from the study site. The closest bat roost is a common pipistrelle *Pipistrellus pipistrellus* roost recorded 1.4km south east of the site (dated 2016). Other species recorded include, Daubenton's bat *Myotis daubentoni*, noctule *Nyctalus noctule* and unidentified myotis species *Myotis sp.*

⁵ Eaton MA, et al. (2005). *Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man*

⁶ Species of Principal Importance in England. The Natural Environment and Rural Communities (NERC) Act 2006 (S41)

3.1.4.5 **Other Mammals**

SBRC provided extensive records of water voles the closest of which was recorded 500m south east from the site on the River Dearne with several otter, harvest mice, mink, bank and water vole, hedgehog and roe deer records within a 2km radius of the site. No records of otters were recorded within the site itself or within 500m of the site. The majority of the records relate to the River Dearne (situated ~470m south at its nearest point) with the closest record being 700m from the site.

3.2 **Preliminary Ecological Field Survey**

3.2.1 **Overview**

3.2.1.1 Please also refer to Figure 1 and photos included in Appendix 2. At the time of survey, the buildings shown on Figure 1 had been demolished with the exception of one agricultural building situated towards the north of the site.

3.2.1.2 The site is situated towards the eastern edge of the village, Bolton Upon Dearne. The area surveyed is bordered to the south and west by residential housing, with arable land to the north and pastoral land (currently grazed by horses) to the east.

3.2.1.3 The wider area comprises a mixture of land uses, including residential housing, pastoral and arable land, woodlands and wetlands (including Bolton upon Dearne Wetlands (LWS) and Adwick Washlands). The River Dearne is situated approximately 470m south (at its nearest point) and a railway running north to south is located approximately 320m west at its nearest point.

3.2.2 **Habitats**

3.2.2.1 The majority of the site comprises bare earth and hard-standing with piles of rubble from buildings that have been demolished. These areas support very little vegetation with ruderal vegetation generally limited to the margins of the site. Species present include dandelion *Taraxacum officinale*, pineapple weed *Matricaria discoidea*, creeping thistle *Cirsium arvense*, nettle *Urtica dioica*, ribwort plantain *Plantago lanceolata*, common bent *Agrostis capillaris*, Yorkshire fog *Holcus lanatus*, white clover *Trifolium repens* and broad-leaved dock *Rumex obtusifolius*. Three semi-mature trees are located on the eastern boundary, including horse chestnut *Aesculus hippocastanum* and ash *Fraxinus excelsior*.

3.2.2.2 The site is bordered by arable land to the north and north-west. An agricultural shed (proposed for demolition) currently used to house machinery is situated towards the north of the site with chickens and farming paraphernalia situated adjacent to the building.

3.2.3 **Birds**

3.2.3.1 A limited range of birds was observed during the survey. Species observed within the site included ten house martins circling the site. Other species observed adjacent to the site include wood pigeon, magpie and blackbird.

3.2.3.2 No Species of Principal Importance for the conservation of biodiversity in England⁷ were recorded at the site.

3.2.3.3 There are limited opportunities for birds to nest within the site. A range of common birds may nest in trees and the adjacent vegetation and the agricultural shed.

⁷ Species listed on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 as Species of Principal Importance for the conservation of biodiversity in England.

3.2.3.4 Open ground nesting birds such as meadow pipit and skylark may nest within the arable field to the north of the site – highly dependent on field management regime. The site is highly unlikely to be a location used by significant assemblages of breeding or wintering birds, particularly due to its proximity to the adjacent residential housing estate.

3.2.3.5 No evidence of specially protected species such as barn owl was noted at the site and it is considered highly unlikely that such species would occur at the site.

3.2.4 *Bats*

3.2.4.1 The trees on the eastern boundary were assessed as having negligible or zero bat roost potential.

3.2.4.2 The agricultural building in the northern part of the site (see photos at Appendix 2) is assessed as having negligible potential to support bat roosts due to the absence of suitable roost features. No evidence of bats was observed in the building

3.2.4.3 In terms of foraging and commuting habitats, the areas of hard standing, bare earth, limited vegetation and arable land on and adjacent to the site are assessed as being of low value for bats. The site is not particularly well connected by hedgerows or trees to suitable foraging or commuting areas.

3.2.5 *Great Crested Newt*

3.2.5.1 SBRC provided two records of great crested newts within 2km of the site.

3.2.5.2 No waterbodies potentially suitable for breeding great crested newts have been identified within 500 metres of the site, apart from potentially suitable waterbodies separated by significant barriers such as main roads and fast-flowing rivers. The site itself provides sub-optimal conditions for great crested newts. It is considered very unlikely that great crested newts will occur at the site. The closest record of great crested newts is 1.2km north of the site.

3.2.6 *Other Protected/Notable Species*

3.2.6.1 Although bare earth and rubble on the site provide potential suitable habitat for reptiles; overall the site is suboptimal for reptiles, being adjacent to sub-optimal habitats (i.e. residential housing and arable land). It is considered highly unlikely that reptiles will occur on site

3.2.6.2 No evidence of badger was observed at the site and the site provides negligible opportunities for badgers.

3.2.6.3 Hedgehog, a Species of Principal Importance in England⁷, could potentially occur within the site.

3.2.6.4 No habitats suitable for otter or water vole were identified within the site.

4 Conclusions and Recommendations

4.1 Protected Sites

- 4.1.1.1 Based on the nature of the development and the distance between the development site and protected sites, the proposed development is not predicted to result in any significant effects on protected sites.

4.2 Habitats

- 4.2.1.1 All of the habitats are assessed as being of low ecological value with the trees and vegetation being of ecological value at site level only.

4.2.1.2 Recommendations

- 4.2.1.3 It is recommended the development should include planted native species at the site. Suitable species would include pedunculate oak *Quercus robur*, rowan *Sorbus aucuparia*, holly *Ilex aquifolium*, silver birch *Betula pendula* and alder *Alnus glutinosa*.

4.3 Birds

- 4.3.1.1 A range of common species may nest in the trees and building on the site.

- 4.3.1.2 Open ground nesting birds such as meadow pipit and skylark may nest within the arable field.

4.3.1.3 Recommendations

- 4.3.1.4 It is recommended that, where possible, any works affecting potential bird nesting areas (trees, arable field and buildings) should be undertaken outside the main bird nesting period of March to August (inclusive). If this is not possible, any such works undertaken within the bird nesting period (March to August inclusive) should be supervised by a suitably qualified ecologist. The supervising ecologist will advise all site personnel of the potential presence of nesting birds, their legal protection and the need to minimise disturbance of nesting birds. If active nests are present, they must be retained in situ undisturbed until the nests are no longer in active use. A nest is classed as active when it contains eggs or chicks and when it is being built.

- 4.3.1.5 There is an opportunity to provide nesting sites for birds such as house martins within the new development. Options such as the 9A Schwegler House Martin Nest can be installed in suitable locations within the site. Nest cups would need to be installed within an outbuilding >3m from ground level.

- 4.3.1.6 Once the nest cups are fixed, it is important to not disturb the birds. House martins are fully protected under the Wildlife and Countryside Act 1981, which makes it an offence to kill, injure or take an adult bird, or to take, damage or destroy the eggs, young or nest of a house martin whilst it is being built or in use⁸.

4.3.1.7 Bats

- 4.3.1.8 No evidence of bat roosts at the site was observed during the surveys and all trees and buildings were assessed as having zero or negligible bat roost potential. In terms of foraging and commuting habitats, the habitats within the site are assessed as being of negligible value for bats.

⁸ Read more at <https://www.rspb.org.uk/birds-and-wildlife/advice/how-you-can-help-birds/nestboxes/how-to-attract-house-martins/#tz9et8b8EgsVWskm.99>

4.3.1.9 Recommendations

4.3.1.10 No further bat surveys are considered necessary.

4.3.1.11 Any additional lighting at the site should aim to avoid artificial light-spill affecting retained trees and woodland.

4.3.1.12 There is an opportunity to enhance the site for bats through provision of roosting opportunities by installing bat boxes. Boxes (such as the 1ff Schwegler bat box) could be installed on the south elevations of trees with low or negligible bat roost potential within the site or on the new development. Bat boxes provide permanence, unobtrusiveness and durability. The bat boxes should be placed >4m above ground level with no artificial light directed on these features

4.4 *Great Crested Newt*

4.4.1.1 It is considered very unlikely that great crested newts will occur at the site. No further surveys or mitigation for this species are considered necessary.

4.5 *Other Fauna*

4.5.1.1 No further surveys or mitigation for other fauna are considered necessary.

4.5.1.2 Recommendations

In the interest of animal welfare, during construction any deep excavations should be either fenced-off, covered overnight or fitted with an exit ramp to avoid the trapping of mammals.

Appendix 1. Legislation and Conservation Context

Bats

All British bat species are fully protected through The Conservation of Habitats and Species Regulations 2010 as a European Protected Species (EPS). They also receive some protection through inclusion in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Under the legislation, it is an offence to deliberately capture, injure or kill a bat. It is an offence to damage or destroy a breeding site or resting place of a bat. It is also an offence to intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection; or obstruct access to any structure or place which it uses for that purpose.

It is also an offence to deliberately disturb a bat; in particular any disturbance which is likely (a) to impair their ability - (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or (b) to affect significantly the local distribution or abundance of the species to which they belong.

The 'appropriate authority' (Natural England in England) has powers to issue licences for various purposes including - (a) scientific or educational purposes... and (e) preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment. The appropriate authority shall not grant a licence under this regulation unless they are satisfied - (a) that there is no satisfactory alternative, and (b) that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range. It is an offence for any person authorised by virtue of a licence to which this paragraph applies to contravene or fail to comply with any condition which the licence requires him to comply with.

Several species of bat including brown long-eared and soprano pipistrelle *Pipistrellus pygmaeus* are listed on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 as Species of Principal Importance for the conservation of biodiversity in England and are capable of being a material consideration in the planning process.

Nesting Birds

All wild birds in the UK are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy the nest (whilst being built or in use) or its eggs. Bird species listed in Schedule 1 of the 1981 Act, e.g. barn owl, receive further protection which makes it an offence to intentionally or recklessly disturb these species while building a nest or in, on or near a nest containing eggs or young; or to disturb dependent young of such a bird.

Appendix 2. Photographs

Photo 1. Looking north across the site towards the agricultural shed with negligible potential for bats



Photo 2. Looking south-east across the site towards the trees situated on the eastern border

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Photo 3. Agricultural shed assessed as having negligible potential for bats

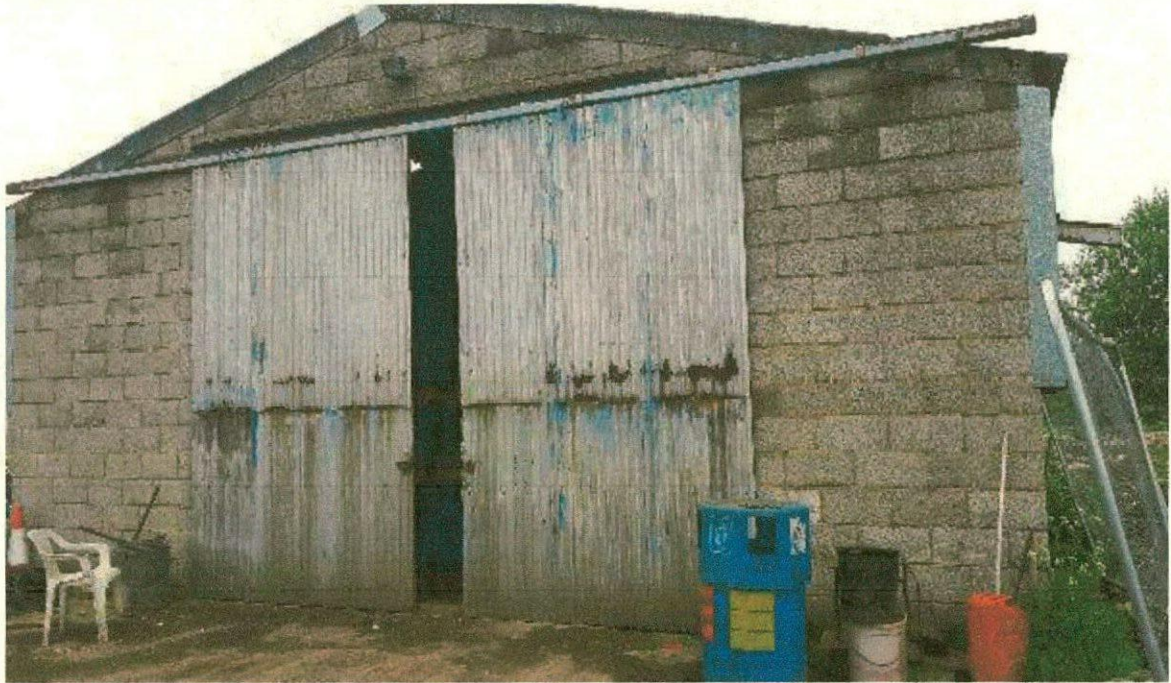


Photo 4. Looking west across north-eastern part of the site



Photo 5. Looking south along the western margin of the site



Appendix 3. Information provided by SBRC

Statutory and Non Statutory Local Wildlife Sites Within the Search Area

