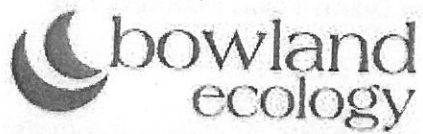


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Ecological Phase 1 Survey Report

Land off Pendle Street East, Sabden, Clitheroe

October 2012

Control sheet

Project No & Title: BOW0017/422 Pendle Street East, Sabden, Clitheroe –
Extended Phase 1 Survey

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1. Introduction

- 1.1 Bowland Ecology Ltd was commissioned by Janet Dixon Town Planners Ltd to undertake an Extended Phase 1 Habitat Survey and desk study of a site at Pendle Street East, Sabden, Clitheroe (NGR: SD 77780 37177). Planning permission is being sought for the development of the site.
- 1.2 The site currently comprises an undeveloped area of land adjacent to Pendle Street East. There are five small garages/sheds present on site. The habitats present include improved, and poor semi-improved grasslands, hedges, trees and tall ruderal vegetation. The site is bordered by hard standing (roads), a football ground, agricultural fields, residential properties, and private gardens.
- 1.3 The purpose of the survey was to: 1) identify and map all habitats occurring within the survey area, 2) identify the presence of (or potential for) wildlife interests with particular reference to the need for further surveys and legal requirements, and 3) provide an ecological assessment and recommendations pertaining to the proposed development.
- 1.4 The ecological survey methodology followed that of an extended Phase 1 habitat survey. It also included a desk study to search for designated wildlife sites and protected species records. This report includes a description of survey methods and results; provides recommendations for further survey; and outlines recommendations to provide protection and enhancements for biodiversity and protected species. This report should be read in conjunction with the Phase 1 plan (Appendix B) and the target notes (1-6) as listed in Appendix A.

2. Methodology

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Desk Study

- 2.1 A targeted desk study was undertaken of the site and a 1km buffer zone involving an online search of the Multi Agency Geographical Information Centre (www.magic.gov.uk), Natural England's Nature on the Map (www.natureonthemap.org.uk) and other online resources. The local biological records centre for the area was also consulted, in this case the Lancashire Environment Record Network (LeRN). The UK and Local (Lancashire) Biodiversity Action Plans were also consulted.
- 2.2 The aim of the desk study was to identify the presence of statutory wildlife sites, non-statutory sites and any legally protected and notable species records for the area.

Extended Phase 1 Survey

- 2.3 The survey followed the Phase 1 habitat survey methodology (JNCC, 1993) and assessed all features of ecological significance within the survey area: All features of ecological significance were target noted and the location of target notes are shown in Appendix B.
- 2.4 The survey was extended such that evidence of fauna and faunal habitat was also recorded. The extended Phase 1 survey is a modified version of the Phase 1 survey and follows the approach recommended by the Guidelines for Preliminary Ecological Appraisal (IEEM, 2012) and the Guidelines for Baseline Ecological Assessment (IEA, 1995). This involves walking the whole site, mapping and describing the habitats present (e.g. woodland, grassland, scrub) and recording evidence of fauna and faunal habitat (e.g. droppings, tracks or specialist habitat such as ditches for water voles or ponds for breeding amphibians). A colour coded map of the habitats on site is produced, with corresponding target notes of ecologically interesting features (Appendix A).
- 2.5 The ecological survey was carried out on 7th September 2012 by Jack Kellet BSc (Hons). The weather was cool with light rain showers, 100% cloud cover and a light breeze. The timing of the survey was within the optimum period for completing such a survey, the conditions were suitable and the whole of the site was accessible. As a result, a comprehensive and valid assessment of the habitats present and their potential to support legally protected species was undertaken.

3. Results

Statutory and Non-Statutory Wildlife Sites

- 3.1 There are two Biological Heritage Sites (BHS's) within 1km of the proposed area. The closest, Black Hill is just over 250m to the south east of the planning application boundary and is 11.35ha in size. The BHS is designated for its dry dwarf shrub heath and marshy grassland. A second BHS, Lower Barn Wood is located to the south west just over 900m from the planning application site. The wood is 2.88ha and is designated for its woodland and scrub habitats.
- 3.2 Since the BHS sites are designated for their habitats rather than faunal species and are over 250m from the planning application site it is not considered that the planned development will have any impact upon them. They are therefore not considered further within this report.
- 3.3 The site also falls within the Bowland fells Area of Outstanding Natural Beauty (AONB).

Protected Species and Habitats Records

- 3.4 Searches with the LeRN provided numerous records within 1km of the site. Of particular relevance, are the following Lancashire BAP species which have been recorded within 1.5km of the site and therefore may be present if suitable habitats are found on site;
- Mammals; common pipistrelle bat
 - Birds; skylark, tree pipit, night jar, cuckoo, yellowhammer, reed bunting, spotted flycatcher, curlew, house sparrow, grey partridge, wood warbler, lapwing, common sandpiper, meadow pipit, swift, linnet, twite, raven, house martin, merlin, peregrine, kestrel, snipe, swallow, red grouse, crossbill, willow warbler, golden plover, dunnoek, whinchat, starling
 - Invertebrates; golden spangle moth, dark marbled carpet moth, brown rustic moth
 - Fish; bullhead
 - Flowering plants; water purslane,
 - Ferns; moonwort,
 - Liverworts; heath earwort
 - Moss; *Campylium stellatum* var. *protensum*, hair-pointed Grimmi, fine-leaved Leskea, bristly fringe-moss, dotted thyme-moss, cow-horn bog-moss
- 3.5 The locations of Lancashire BAP records are shown in Appendix C.
- 3.6 Online resources found a number of BAP species records for the grid square SD73 and therefore these species could potentially be present if suitable habitats are found on site;
- Amphibian; great crested newt and common toad.
 - Birds; common cuckoo, common grasshopper warbler, Eurasian curlew, Eurasian tree sparrow, grey partridge, house sparrow, lesser redpoll, northern lapwing, reed bunting, ring ouzel, spotted flycatcher, tree pipit, yellowhammer and wood warbler.

- Flowering plants; cornflower and lesser butterfly orchid.
 - Invertebrates; wall, small heath and white letter hairstreak butterflies, Autumnal rustic, broom, buff ermine, cinnabar, dark brocade, dusky brocade, ear moth, flounced chestnut, ghost, grey dagger, knot grass, mouse, small phoenix, small square spot and white ermine moths
 - Terrestrial mammals; otter
 - Fish; Atlantic salmon, brown sea trout, European eel and sea lamprey
 - Lichen; river jelly lichen and *Toninia sedifolia*
- 3.7 Natural England's 'Nature on the Map' website (www.natureonthemap.co.uk) indicates that Lower Barn Wood BHS (mentioned above) is an area of ancient and semi natural woodland. There are four further areas of deciduous woodland BAP habitat areas within 1km of the proposed development site. All of these habitats were more than 250m from the site.

Extended Phase 1 Survey

- 3.8 Target notes summarising key interest features for wildlife recorded during the Extended Phase 1 survey are included as Appendix A. The Phase 1 habitat plan for the study site is presented as Appendix B which includes dominant species codes for the habitats present and the locations of the target notes.
- 3.9 The proposed site is situated to the south of Sabden in Lancashire. The site comprises semi-improved species poor and improved grassland, hedgerows, trees and tall ruderal vegetation. The surrounding landscape is generally one of rural villages, agricultural fields and hedgerows. The site is immediately surrounded by fields, hard standing (roads), residential properties and gardens and a football ground.

Habitat descriptions from field survey

Semi-improved species poor grassland

- 3.10 Semi-improved species poor grassland makes up the majority of the site (TN5). Species present include perennial rye grass (*Lolium perenne*), Yorkshire fog (*Holcus Lanatus*), cocksfoot (*Dactylis glomerata*), bent grass (*Agrostis sp.*), tufted hair grass (*Deschampsia cespitosa*), common sorrel (*Rumex acetosa*), meadow buttercup (*Ranunculus acris*), creeping buttercup (*Ranunculus repens*), meadow vetchling (*Lathyrus pratensis*), bramble (*Rubus fruticosus*), broad leaved dock (*Rumex obtusifolius*), hedge bind weed (*Calystegia sepium*), great willowherb (*Epilobium hirsutum*), common nettle (*Urtica dioica*), creeping thistle (*Cirsium arvense*).

Improved grassland

- 3.11 There is a strip of improved grassland between the access track and the football pitch to the east of the site. The dominant species is perennial rye grass with few other species present.

Tall ruderals

- 3.12 Tall ruderals (TN2) make up the northern edge of the main field. The habitat is dominated by greater willowherb (*Epilobium hirsutum*), yellow iris (*Iris pseudacorus*), rosebay willowherb (*Epilobium angustifolium*), and garden loostrife (*Lysimachia punctata*) with other garden escape species.

Buildings

- 3.13 There are five small buildings (TN3) within the application boundary. These are two brick garages one with pebble dashing and a pitched tiled roof and, one with a flat roof and another garage constructed from corrugated metal. There are also two very small wooden sheds. All are in good condition and well-sealed.

Defunct Species Poor Hedgerow

- 3.14 The western boundary of the site consists of a defunct species poor hedge extending from south of the buildings down to the south west corner of the site (TN1). The dominant species present is hawthorn (*Crataegus monogyna*) with a number of small trees; beech, willow and apple.

Species Poor Hedgerow

- 3.15 There are several species poor privet hedgerows (TN6) to the north of the site around the buildings.

Trees

- 3.16 There is a small group of trees in the south eastern corner of the site consisting of beech, oak and alder with an under-storey of holly (TN4).

Other habitats

- 3.17 There are a number of stone walls towards the northern end of the site and bare ground/hard standing is present to the north and along the access road. Fence lines are located along the northern, eastern and southern boundaries of the site; whilst bare ground and stone walls have the potential to be colonised by pioneer plants, they are of little intrinsic ecological value.

Faunal description from field survey

- 3.18 A range of habitats are present within the site boundary including; grassland, tall ruderals, hedges and trees, which can provide a number of opportunities for fauna to inhabit the site.

Small and medium mammals

- 3.19 The grassland and tall ruderal habitats provide opportunities for small mammals such as mice, field voles and shrews. No badger setts were observed to be present at the time of survey. The site provides good opportunities for cover for hedgehogs, which are a UK BAP species, and fox in areas of tall ruderals.

Birds

- 3.20 There is potential for common ground nesting and nesting birds to be present throughout the site, particularly within the hedgerows, and areas of tall ruderals (TN1, TN2 and TN6). These habitats are also likely to provide foraging habitat and connectivity for birds within nearby woodland habitats. There are a small number trees on the site itself, along the defunct hedgerow (TN1) and in the south eastern corner (TN4), these are also likely to have nesting birds present.

Amphibians

- 3.21 The site does provide good terrestrial habitat for amphibians such as great crested newts; however, there are no ponds within 250m of the proposed development site and the small stream on site is not suitable for amphibian breeding. Furthermore, no records of great crested newt were returned from the 1km desk study search area. There is therefore only a negligible risk of

amphibians being present on site and they are not considered further within this report.

Bats

- 3.22 There are a small number of trees on site. These trees are in good condition and do not have any obvious roosting features such as broken limbs or woodpecker holes. The trees are therefore considered to be of low risk for bat roosting.
- 3.23 There are five small non-residential buildings on site. All the buildings are all in good condition and well-sealed without any obvious gaps or crevices where bats could gain entry. It is therefore considered to be unlikely that any bat roosts will be present within the buildings.
- 3.24 Whilst the trees, the grassland habitats and the linear features, including the hedgerows around the site, are likely to provide foraging opportunities for a range of bat species there is no shortage of similar habitat in the surrounding landscape.

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4. Impact Assessment and Recommendations

- 4.1 This section is a summary of ecological interest within the survey area and the recommendations and mitigation measures that should be considered should the development affect them.

Scheme Proposal

- 4.2 The scheme involves the development of the site for residential accommodation. The development may impact upon improved grassland, semi-improved grassland, tall ruderals, trees and hedgerows.

Habitats

- 4.3 The proposed development may have the greatest impact on species poor semi-improved grassland; this habitat was found to be species poor and of low ecological value. It also may impact upon improved grassland, tall ruderals, trees and species poor hedgerow. All of these habitats are commonly occurring and also of limited ecological value. Due to the low value of these habitats, it is considered that the development is not likely to have any significant impacts in respect of habitat types.

Birds

- 9 0 1 4.4 Where hedgerows, trees and other potential bird nesting habitat, are removed as a result of the proposed works, it is recommended that the works should take place outside the breeding bird season which runs from late February until September, in order to prevent any impacts upon breeding birds.

- 4.5 Any vegetation clearance work that must be carried out within the bird breeding season will be subject to a pre-clearance bird survey carried out by a suitably experienced ecologist. No vegetation clearance will be carried out within 5m of an identified nest until the young have fledged and are no longer returning to the nest site. Vegetation will only be cleared once a scheme ecologist has declared the nest to be no longer in use.

- 4.6 Mitigation for the loss of breeding bird habitat should include the planting of native species of trees and shrubs and the provision of alternative nesting opportunities in the form of nest boxes within the new development.

Bats

- 4.7 None of the trees situated on the site are considered to provide features suitable for roosting bats. Further survey of these trees is not considered necessary.
- 4.8 Retaining the trees within the hedge along the western boundaries of the site and in the south eastern corner should retain the connectivity for commuting and foraging bats that are likely to use the site.
- 4.9 It is considered that the buildings on site are of negligible potential to support a bat roost. Notwithstanding this assessment, it is always advisable to have a procedure in place should bats be discovered or suspected during works. All works should cease and the scheme ecologist should be contacted for advice, who may arrange for a licensed bat worker to attend site. Bats should not be handled by contractors, unless the bat is in imminent danger in which case they should be scooped up into a container, and never handled with ungloved hands.

Enhancement

- 4.10 A key element of the National Planning Policy Framework is to minimise impacts to biodiversity and provide enhancements. Paragraph 109 states that 'The planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible'. It also states in Paragraph 118 that 'when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by encouraging opportunities to incorporate biodiversity in and around developments'.

- 4.11 Measures to enhance the biodiversity of the site include:

- a) Seeking the advice of a professionally/suitably qualified ecologist throughout the progress of the development in order to maximise ecological and biodiversity gains at each stage.
- b) Planting of scattered trees around the proposed new buildings. Species that should be used should include hawthorn, ash, oak and rowan. Specimens should be sourced locally, they should be planted at an appropriate time of year (Oct – Feb, when there is no ground frost) and protected from grazing by rabbits and deer.
- c) Installation of bird nesting boxes on the properties.
- d) Opportunities for roosting bats should be provided within the proposed residential buildings. Incorporation of roosting opportunities within the proposed development should be achievable, and can be designed to meet with planning requirements and building regulations. It is recommended that one of the following is incorporated into each building with south or west aspects;
 - o Access gaps between soffits and walls (15-20mm);
 - o Access points to the roof void via bat tiles incorporated into the roof structure or bat tubes built into gaps in the masonry or into wall surfaces (Tubes such as the Schwegler 2FR Bat Tube would be suitable).
 - o Access points over top of cavity walls by specifically constructed gaps;
 - o External bat bricks installed at a height of 3m (or close to the roof line), in the south or west facing elevation (Schwegler 1FR Bat Tube would be suitable).
- e) The integration of bat roosting habitat will not cause disturbance to users of the development, nor create aesthetic problems. Bats will not nibble or gnaw at wood, wires or insulation. Bat droppings do not smell strongly, there are no known health risks associated with them. The droppings are dry and do not putrify, but crumble away to dust, or are washed away by rain.
- f) Any plantings within the new development would provide foraging habitat for bats, and therefore have the potential to increase the value of the site. Nectar rich plants that attract insects would be recommended as they would enhance foraging opportunities for bats in the local area.

References

- IEA. 1995. *Guidelines for Baseline Ecological Assessment*. Chapman and Hall.
IEEM, 2012. *Guidelines for Preliminary Ecological Appraisal*. IEEM.
Joint Nature Conservation Committee (1993). *Handbook for Phase 1 Habitat Survey: A technique for environmental audit*. JNCC
www.ukbap.org.uk

Legal Information

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This report provides guidance of potential offences as part of the impact assessment. This report does not provide detailed legal advice and for full details of potential offences against protected species the relevant acts should be consulted in their original forms i.e. The Wildlife and Countryside Act, 1981, as amended, The Countryside and Rights of Way Act 2000, The Natural Environment and Rural Communities Act, 2006 and The Conservation of Habitats and Species Regulations 2010.

Bats

All **bats** in the UK are listed on Schedule 5 of the Wildlife and Countryside Act (WCA) (1981, as amended), updated by the Countryside and Rights of Way Act (2000). It is therefore subject to provision 9 of the WCA which makes it an offence to;

- Intentionally kill, injure or take any wild bat,
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by any wild bat
- Intentionally or recklessly disturb any wild bat while it is occupying a structure or place which it uses for that purpose.
- Possess or control any live or dead specimen or anything derived from a UK bat species.

The Countryside and Rights of Way Act 2000 amends the Wildlife and Countryside Act to also make it an offence to intentionally or recklessly damage, destroy or obstruct a place that bats use for shelter or protection. The term 'reckless' is defined by the case of Regina v Caldwell 1982. The prosecution has to show that a person either deliberately took an unacceptable risk, or failed to notice or consider an obvious risk.

The Conservation of Habitats and Species Regulations 2010 which make provision implementing Council Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna (the Habitats Directive). These give additional protection to bats, which are listed on Schedule 2 of the Regulations. Under Regulation 39 a person commits an offence if he;

- Deliberately captures, injures or kills any wild animal of a European protected species.
- Deliberately disturbs wild animals of any such species in such a way as to be likely significantly to affect the ability of any significant group of animals of that species to:
 - i) to survive, to breed or to 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 the local distribution or abundance of that species

A bat roost has been interpreted by Natural England to mean any structure or place which is used for shelter or protection whether or not bats are present at the time.

Breeding Birds

Breeding birds are protected by Section 1 of the Wildlife and Countryside Act (1981, as amended). All birds, their nests and eggs are protected by law and it is thus an offence, with certain exceptions, to intentionally;

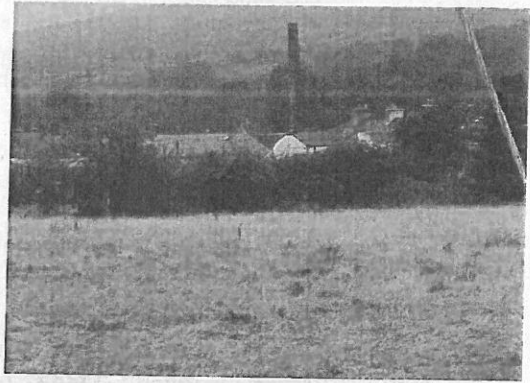
- Kill, injure or take any wild bird,
- Take, damage or destroy the nest of any wild bird while it is in use or being built,
- Take or destroy the egg of any wild bird.

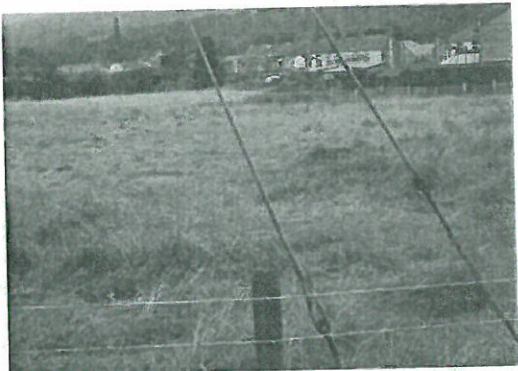
Birds listed on Schedule 1 of the Wildlife and Countryside Act (1981, as amended) are subject to increased protection through a penalty system. For species listed on this Schedule it is also an offence to intentionally or recklessly;

- Disturb any Schedule 1 bird while it is building a nest or is in or near a nest containing eggs or young,
- Disturb dependent young of any Schedule 1 bird.

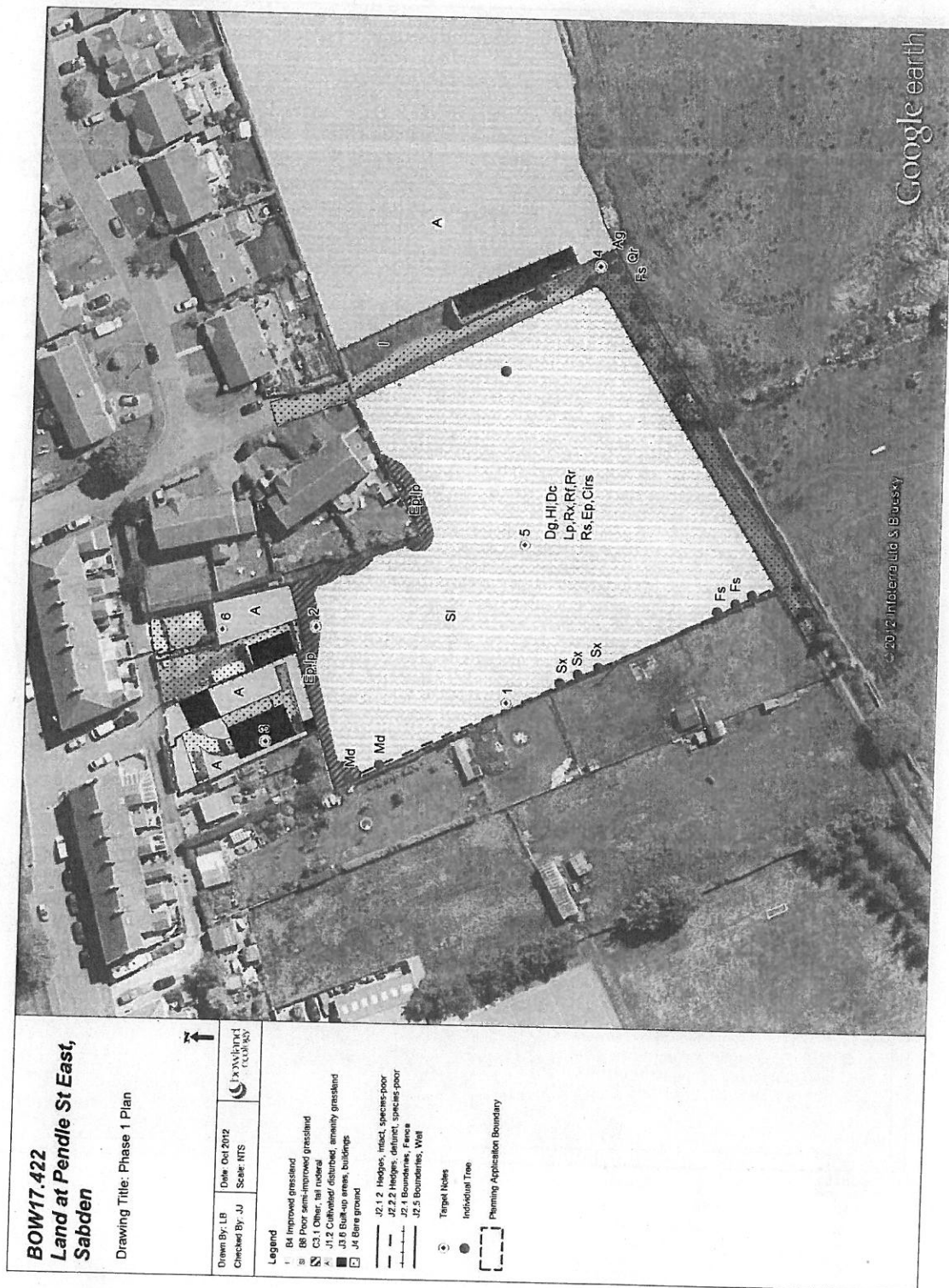
Appendix A – Extended Phase 1 Target Notes

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Target Note	Description	Photograph
1	A species poor defunct hedgerow consisting mainly of hawthorn makes up the western boundary of the site. The hedge includes some small trees; beech, willow and crab apple. The hedgerow and trees have potential for nesting birds to be present.	
2	Tall ruderals are present across the northern edge of the main field to the south of the buildings, and spreading down the north end of the western boundary. Species present include great willowherb, yellow flag iris, and rosebay willowherb, golden loosestrife and other garden escapes. This habitat has the potential to be used by small and medium sized mammals and ground nesting birds. No evidence of badger activity was found during the survey.	
3	There are five small buildings on site. These are three garages and two very small sheds. During an external inspection there were no obvious signs of use by bats and the buildings were all well sealed with no gaps/crevices where bats might gain entry.	
4	There is a small group of trees in the south eastern corner of the site. Species present include beech, oak and alder with an under-storey of holly. These trees have the potential for nesting birds to be present.	

5	Semi-improved species poor grassland comprises the majority of the site. Species present include rye grass, Yorkshire fog, cocksfoot, tufted hair grass, common sorrel, great willowherb, meadow and creeping buttercup, common nettle, curled and broad leaved dock, bramble, broad leaved willowherb, meadow vetchling, hedge bindweed, creeping thistle, This grassland provides potential habitat for foraging birds and small mammals.	
6	There are a number of species poor garden hedgerows around the garages and gardens to the north of the site, the dominant species being privet. These hedgerows have potential for nesting birds to be present.	

Appendix B – Extended Phase 1 Habitat Plan



Appendix C – Species Records Plan

