



**envirotech**

Ecological Consultants  
Environmental and Rural Chartered Surveyors

# Ecological Appraisal

## Windy Arbour, Chipping



Tel: 015395 61894  
Email: [info@envtech.co.uk](mailto:info@envtech.co.uk)  
Web: [www.envtech.co.uk](http://www.envtech.co.uk)  
Envirotech NW Ltd

The Stables, Back Lane, Hale, Milnthorpe, Cumbria. LA7 7BL  
Directors: A. Gardner BSc (Hons), MSc, CEnv, MCIEEM, MRICS, Dip NDEA  
H. Gardner BSc (Hons), MSc, CEnv, MRICS  
Registered in England and Wales. Company Registration Number 5028111

## PROFESSIONAL RESPONSIBILITY

This report has been commissioned and the actions of the surveyor have been made in accordance with the Code of Professional Conduct for the Chartered Institute of Ecology and Environmental Management. ([www.cieem.org.uk](http://www.cieem.org.uk)) and the Royal Institution of Chartered Surveyors ([www.rics.org.uk](http://www.rics.org.uk))

## ACCURACY OF REPORT

This report has been compiled based on the methodology as detailed and the professional experience of the surveyor. Whilst the report reflects the situation found as accurately as possible, all of the protected species this survey covers are wild and can move freely from site to site. Their presence or absence detailed in this report does not entirely preclude the possibility of a different past, current or future use of the site surveyed.

We would ask all clients acting upon the contents of this report to show due diligence when undertaking work on their site and/or in their interaction with protected species. If protected species are found during a work programme, and continuing the work programme could result in their disturbance, injury or death, either directly or indirectly an offence may be committed. If in doubt, stop work and seek further professional advice.

## Quality and Environmental Assurance

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## **INTRODUCTION**

### **1.1 Background**

1.1.1 In January 2016 Envirotech NW Ltd were commissioned by Sunderland Peacock Associates Ltd to carry out an Ecological Appraisal of land at Windy Arbour, Chipping, central grid reference SD 60610 44059. A site investigation was undertaken and a report compiled which includes recommendations for any future actions and or mitigation required.

1.1.2 The survey was requested in connection with the proposed redevelopment of the site.

### **1.2 Objectives**

1.2.1 The main objectives of the study were:

- The completion of a Phase 1 Habitat Survey including the preparation of a vegetation and habitat map of the site and the immediate surrounding area.
- The survey and assessment of all habitats for statutorily protected species.
- An evaluation of the ecological significance of the site.
- The identification of any potential development constraints and the specification of the scope of mitigation and enhancement required in accordance with wildlife legislation, planning policy and other relevant guidance, and;
- The identification of any further surveys or precautionary assessments that may be required prior to the commencement of any development activities.

## 2. METHODOLOGY AND SOURCES OF INFORMATION

### 2.1 Data Search

- 2.1.1 The Biological Records centre for Lancashire “LERN”, the Envirotech dataset, and the Multi-Agency Geographic Information for the Countryside (MAGIC) were searched to establish the presence of any records of statutorily protected, notable or rare species, and any designated sites of international, national, regional or local importance within a 2km radius of the site boundary.
- 2.1.2 The Envirotech dataset is compiled from extensive field surveys from the period 2004-present, as well as records obtained from third parties during this time.
- 2.1.3 Google Earth and Google Street View were consulted to establish the presence of any features of ecological importance within the local area.

### 2.2 Vegetation and Habitats

- 2.2.1 A vegetation and habitat map was produced for the site and the immediate surrounding area. The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC 2003).
- 2.2.2 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the Wildlife and Countryside Act (1981) and indicators of important and uncommon plant communities. All plant nomenclature follows Stace (1991).
- 2.2.3 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the Wildlife and Countryside Act (1981), namely Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and giant hogweed (*Heracleum mantegazzianum*) on terrestrial habitat and aquatic species such as floating pennywort (*Hydrocotyle ranunculoides*), water Hyacinth (*Eichhornia crassipes*) and New Zealand pygmyweed (*Crassula helmsii*).
- 2.2.4 The survey was also informed by questioning the landowner/site agent to ascertain the recent history of the site.

### 2.3 Timing and Constraints

- 2.3.1 The site and surrounding land was visited on the 10<sup>th</sup> February 2016 by Matthew Thomas BSc (Hons), Grad CIEEM.
- 2.3.2 Full access to the site was possible. The habitats present could be adequately assessed at the time of year the survey was undertaken.

### **3. PHASE 1 SURVEY RESULTS**

#### **3.1 *Habitat Results***

3.1.1 The site comprises the former site of a piggery, with buildings of simple construction within a site now overgrown with scattered scrub. There are fences and walls on the site boundary and open poor semi-improved grassland to the North, South, East and West. A domestic house and garage is adjacent to the site to the South-east.

3.1.2 See Figure 1 for the Phase 1 Habitat Plan and Table 1 for the descriptive Botanical and Faunal Target Notes, hereafter referred to as BTN and FTN.

Target Note	Description	Comment
BTN1	Scrub - scattered	<p>Tall grass and ruderals with saplings and shrubbery towards the North. Grass species include false oat-grass (<i>Arrhenatherum elatius</i>), cocksfoot (<i>Dactylis glomerata</i>), meadow foxtail (<i>Alopecurus pratensis</i>) and creeping bent (<i>Agrostis stolonifera</i>).</p> <p>There are tall examples of broad-leaved dock (<i>Rumex obtusifolius</i>), rosebay willow herb (<i>Chamerion angustifolium</i>), nettle (<i>Urtica dioica</i>) and ragwort (<i>Jacobaea vulgaris</i>) growing throughout.</p> <p>To the North, past the buildings, there are a multitude of short leylandii (<i>Leylandii x Cupressus</i>) and other cypresses, along with holly (<i>Ilex aquifolium</i>), bay laurel (<i>Prunus laurocerasus</i>) and ash (<i>Fraxinus excelsior</i>) saplings.</p>
BTN2	Poor semi-improved grassland	<p>A short grazed grassland with species such as cocksfoot, fescue (<i>Festuca</i> sp.) and perennial ryegrass (<i>Lolium perenne</i>). Throughout the short sward is meadow buttercup (<i>Ranunculus acris</i>) and white clover (<i>Trifolium repens</i>).</p> <p>Nettle, creeping thistle (<i>Cirsium arvense</i>) soft rush (<i>Juncus effusus</i>) are in stands, scattered across this small area.</p>
BTN3	Other habitat	An existing residential house, garage and garden are present to the South-east of the site.
FTN1	Building	A derelict static caravan is present at the far North of the site. This was inspected for the potential presence of nesting birds.
FTN2	Building	A large timber, concrete and block shed stands in the centre of the site. This was inspected for the potential presence of nesting birds and roosting or hibernating bats.
FTN3	Building	A long brick and iron framed piggery is present across much of the centre site. This was inspected for the potential presence of nesting birds and roosting or hibernating bats.

**Table 1** Details of Botanical and Faunal Target Notes.







**BTN1**

The scattered scrub at the North of the site includes planted cypresses and other saplings and shrubs.



**BTN1**

Some areas of the site are tall ruderal and grassland before fading into the scattered scrub.



**FTN2**

Timber, block and concrete built shed, North of the centre of the site, with FTN1, a static caravan in the background.

Note the section of roof missing from FTN2.



**FTN2**

The building is made from thin materials that have poor thermal properties and thus reduce their likelihood of being used by bats.



**FTN2**

Internally the building has no voids or other features that would provide suitable roosting features for bats. Inside there is no evidence of use by any birds for nesting.



**FTN3**

The very large brick and iron framed piggery on site. Externally there are no features suitable for use by bats.





**FTN3**

**Metal corrugate roofed individual stalls are present on the sides of the building.**



**FTN3**

**Much of the fibre cement corrugate roof of the building has fallen in.**



**FTN3**

**An abandoned blackbird (*Turdus merula*) nest is present in one of the stalls on site.**

**Table 2 Photographs features on the site.**

## 4. SPECIES SURVEY METHODOLOGY

### 4.1 Amphibian

- 4.1.1 Great crested newts (*Triturus cristatus*) are listed on Annexes II and IV of the EC Habitats Directive and Appendix II of the Bern Convention. It is protected under Schedule 2 of the Conservation (Natural Habitats) Regulations (2010) and Schedule 5 of the Wildlife & Countryside Act (1981).
- 4.1.2 The great crested newt baseline survey involved a pond screening assessment to determine the presence and suitability of ponds located within the study area using a Habitat Suitability Index.
- 4.1.3 There are no ponds within 250m of the site. Further survey effort for great crested newts and other amphibian species was therefore considered to be unwarranted.

### 4.2 Badger

- 4.2.1 Badgers (*Meles meles*) and their setts are protected under the Protection of Badgers Act (1992). This legislation arises from animal welfare issues (rather than on the basis of nature conservation grounds) and essentially protects badgers from killing, injuring or disturbance. The main issue on proposed development sites tends to be the potential disturbance of badgers in their setts as a result of construction operations. Natural England recommends that the use of heavy machinery in proximity of a sett entrance should be avoided, with a 'disturbance free-zone' being established. The degree of disturbance attributed to construction activity is a function of the background level of activity badgers are accustomed to and that which will be attributed to a proposed activity. The "disturbance free zone" is therefore site specific.
- 4.2.2 The survey for badgers comprised an assessment of all suitable habitat within and outside the study area boundary (where this was possible) for indications of use by badgers.
- 4.2.3 Signs of badgers which were searched for included:
- Setts - 'D' shaped entrances at least 25cms wide and wider than they are high with large spoil mounds
  - Discarded bedding at sett entrances (this includes grass and leaves)
  - Scratching posts on shrubs and trees close to a sett entrance
  - The presence of badger hairs which are coarse, up to 100mm long with a long black section and a white tip
  - Dung pit latrines and footprints
  - Habitual runs through vegetation and beneath fences
  - Hedgehog carcasses

## 4.3 Bats

- 4.3.1 All British bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act (1981), and are included on Schedule 2 of the Conservation (of Natural Habitats) Regulations (2010), as European Protected Species. Taken together, these pieces of legislation make it an offence to:
- Intentionally or recklessly kill, injure or capture bats;
  - Deliberately or recklessly disturb bats (whether in a roost or not);
  - Damage, destroy or obstruct access to bat roosts.
- 4.3.2 The Bat Conservation Trust (Hundt (2012)) issued guidelines on bat survey methodology, a key feature of their recommendation is for the undertaking of a pre-survey assessment - an initial desk-study and a walkover assessment of the survey area and its surrounding area to identify the relative value of the habitats present for bats and likely commuting routes. This is to be followed by a survey program that is appropriate to the likely level of bat activity within the survey area to be determined by and based on the experience of the surveyor.
- 4.3.3 The potential value of the survey area for foraging bats was assessed through consideration of two main factors: professional knowledge of bat ecology and foraging behavior in combination with the geographical location, topography and habitats present within the survey area and surrounds. This resulted in the production of a map showing habitat quality both on and adjacent to the site.
- 4.3.4 With the site located on a fell top, in a windy, exposed location; activity surveys for bats were considered to be unwarranted. Bats would be highly unlikely to use this area for foraging.
- 4.3.5 All trees and structures on and within the site boundary were assessed for their potential to support roosting or hibernating bats. This comprised a close inspection of all trees on and an external visual assessment of buildings outside the site and an assessment of their potential to be used by bats by a licensed surveyor.

## 4.4 Birds

- 4.4.1 All breeding birds, other than pest species, are protected under the Wildlife and Countryside Act of 1981 when building a nest, rearing young or sitting on eggs. Some bird species, such as barn owl (*Tyto alba*), are protected when near an active nest site. Several birds are listed as UK and or County BAP species.
- 4.4.2 The poor quality habitat suggested a low potential for breeding bird species of interest.
- 4.4.3 Bird species and behavior was noted during the other field surveys. All areas are covered equally, in order to avoid the subjective survey of better quality 'bird habitat'.

## **4.5 Brown Hare**

- 4.5.1 The brown hare (*Lepus europaeus*) is a UK BAP species.
- 4.5.2 The survey method involved walking boundaries and surveying with binoculars. The survey was conducted at a suitable distance to ensure that the hares were not disturbed. Generally, surveys were undertaken throughout the early afternoon and evening when hares are thought to be most active and feeding.
- 4.5.3 Where present the number of brown hares in each field or hedgerow was recorded, together with the nature and use of the field, climatic conditions and time of day. The presence of forms and faeces where present were also recorded.

## **4.6 Invertebrates**

- 4.6.1 A general assessment was made of the study area's suitability for supporting invertebrates during the phase 1 survey. The study area's lack of habitat diversity, species-poor composition and uniformity of vegetation structure (i.e., lack of variation in height and microtopography) resulted in our belief that a low diversity of invertebrates would be likely to occur across the site.
- 4.6.2 The presence of invertebrates was noted during the other surveys which were undertaken. The extent of sampling was limited in that it could be confirmed that no priority or BAP species would be likely to be affected by the proposal.

## **4.7 Reptiles**

- 4.7.1 All native reptiles are protected in Britain under the Wildlife and Countryside Act of 1981. It is an offence to intentionally kill, injure, sell or advertise to sell any of the six native species.
- 4.7.2 The survey for these species was based on assessing the habitat type and suitability of the site. This comprised an assessment of satellite imagery for the site and surrounding area as well as comparison of the results from the records searches with habitat types. The general habitat at the site was evaluated in terms of its suitability to reptiles for foraging or breeding.
- 4.7.3 Habitat at the site was not considered sufficiently suitable for a full presence/absence survey to be warranted.

## **4.8 Survey limitations**

- 4.8.1 Surveys were undertaken in winter. At this time of year plant species are less easily identified and the activity of some species is reduced. Given the habitats present on the site; this was not considered to be a significant limitation.

## 5. RESULTS

### 5.1 *Data Search*

- 5.1.1 Envirotech and LERN hold no records of protected or notable species for the site. There are however records of protected or notable species within 2km (Figure 2). These are discussed in the relevant sections below.
- 5.1.2 The nearest non-statutory site is Nan King's Grasslands Biological Heritage Site (BHS), 600m to the East (Figure 3).
- 5.1.3 The nearest statutory protected site is Bowland Fell Site of Special Scientific Interest (SSSI), Special Protected Area (SPA) 400m North-west (Figure 4).



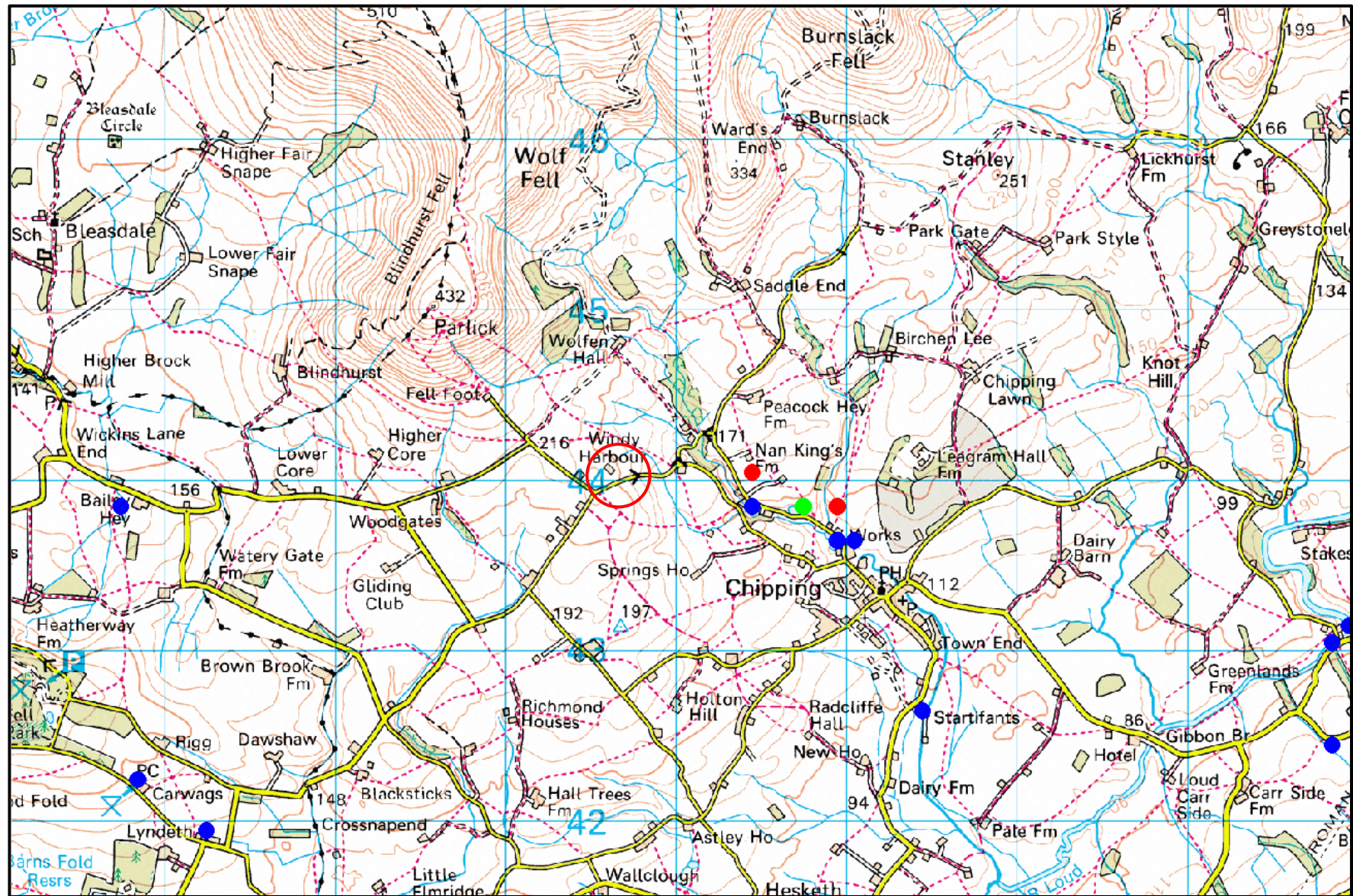


Figure 2 Notable species records in the local area where blue indicates records of bats, green indicates brown hares and red indicates records of amphibians. Site location circled red.



# Lancashire County Heritage Sites

## Biological Heritage Site

Nan King's Grasslands



**Site Boundary**

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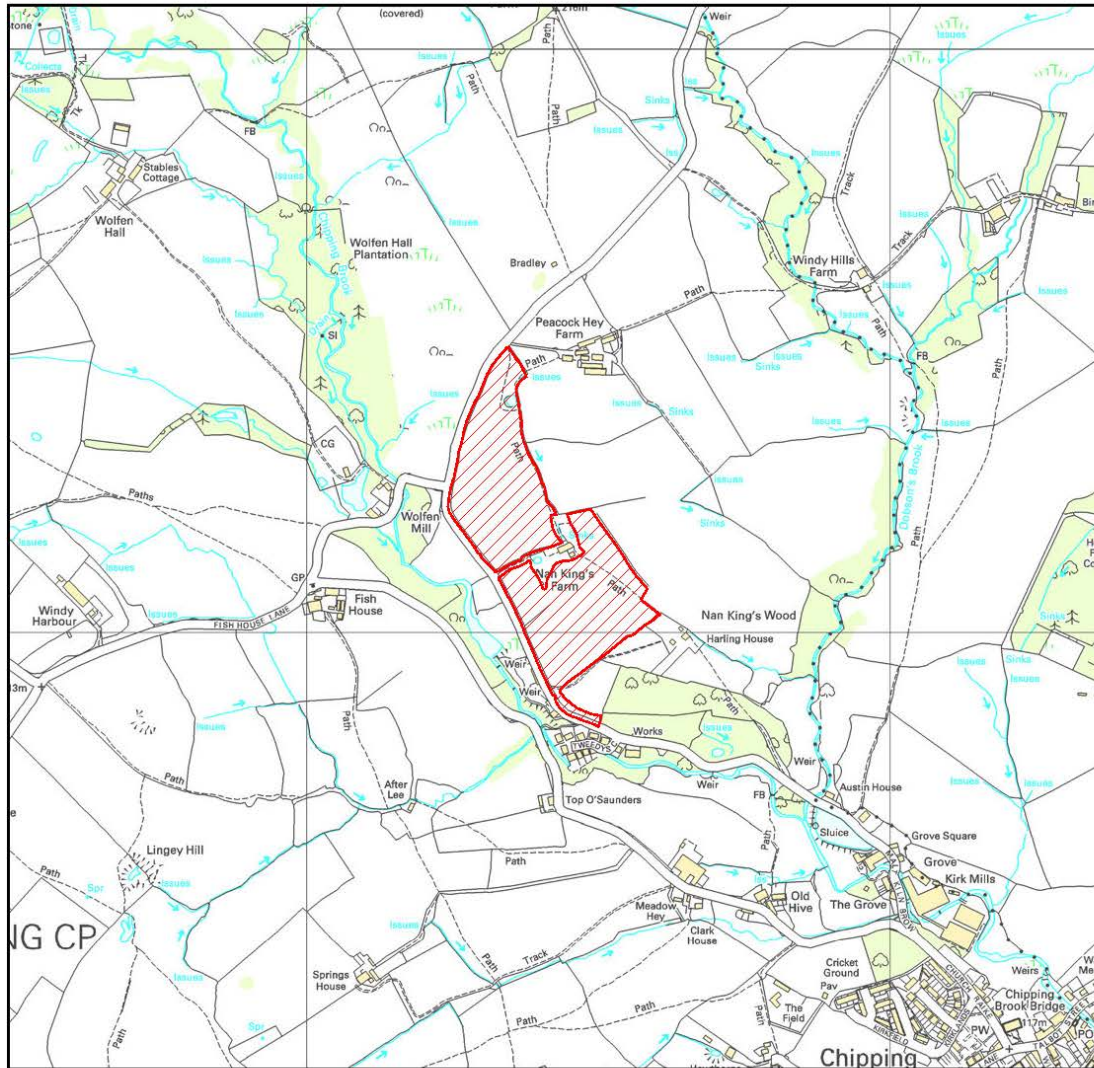
This map shows only the boundary of the Biological Heritage Site named above. It does not show any other designated sites which may occur within the area covered by the map.

Ref No. 64SW01

*Biological Heritage Sites Partnership*

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*Natural England*



Grid ref. SD614438

Scale 1:10,000

Site approved

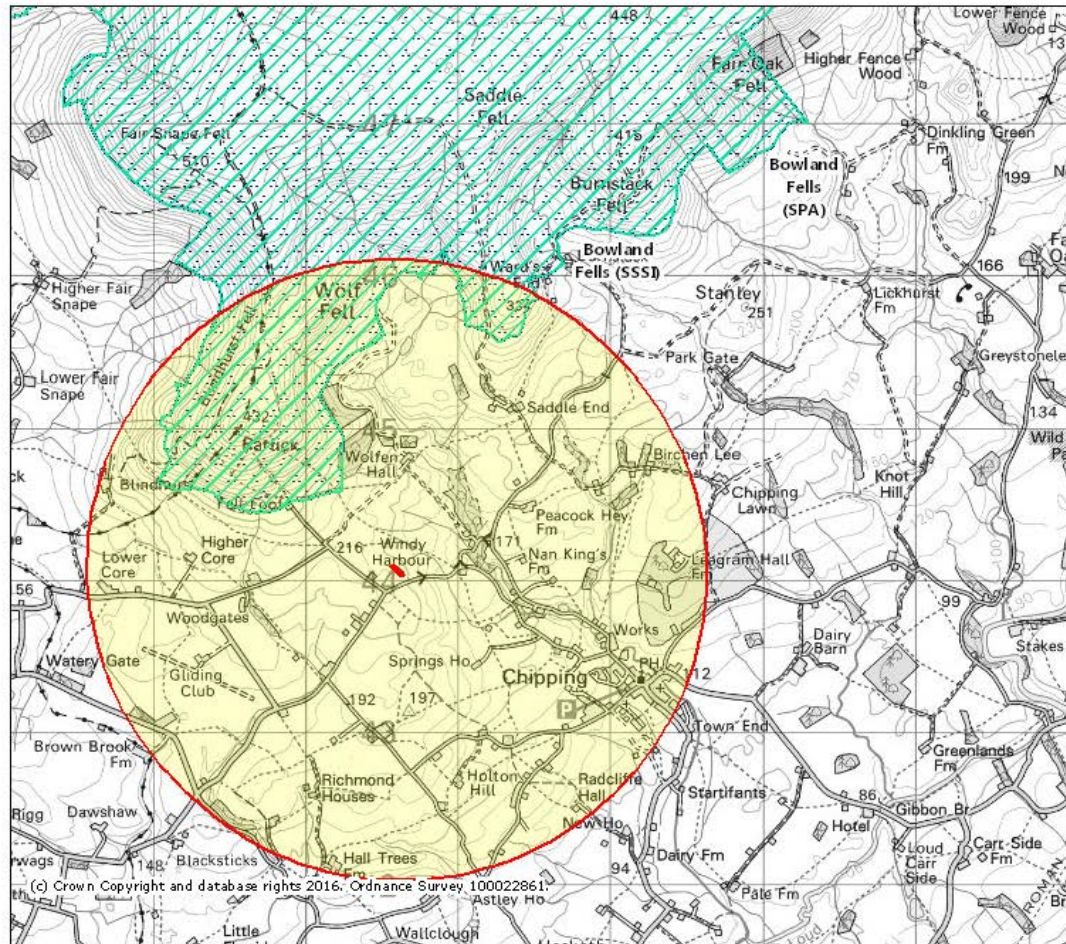
Map 1 of 1

Boundary revised

Date of Map 29/09/14



Figure 3 The closest non-statutory site is Nan King's Grasslands BHS, 600m to the East.



**Legend**

- ▣ Sites of Special Scientific Interest (England)
- Special Protection Areas (England)

Projection = OSGB36  
 xmin = 352700  
 ymin = 440100  
 xmax = 370400  
 ymax = 449300  
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Figure 4 The closest statutory protected site Bowland Fell SSSI, SPA.

## **5.2 Vegetation**

- 5.2.1 Details of the plant species found on site are included in the target notes. Species recorded are all commonly occurring and undoubtedly occur elsewhere in similar habitats in the local area.
- 5.2.2 The poor semi-improved grassland has a very low species diversity and ecological value. Whilst the assemblage of species within it is higher than improved pasture, the species are all indicative of regular grazing and disturbance, this habitat does not constitute a BAP habitat.
- 5.2.3 There are no hedges on site. The scattered scrub is sparsely scattered with hedge species, many of which are non-native, such as *leylandii*. This area has a low ecological value.
- 5.2.4 There are no mature trees on site. Tree species consist of several saplings of ash, again with a low ecological value.
- 5.2.5 There is no evidence of Japanese knotweed, giant hogweed or Himalayan balsam on the site. No other invasive or notable weed species listed on Schedule 9 (Section 14) of the Wildlife and Countryside Act (1981) (as amended) was identified within the site or adjacent land.

## **5.3 Amphibian**

- 5.3.1 There are two records of amphibians within 2km of the site; these records are for common frog (*Rana temporaria*) at a distance of greater than 1km away. There are no records of great crested newts within 2km of the site.
- 5.3.2 There is no standing water on site, or within 250m of the site. The nearest pond is 400m to the South-west, at a considerably lower elevation and across a road. It is doubtful that any amphibian using this pond would habitually use the site for foraging or refuge.
- 5.3.3 The site does have some value to amphibians for foraging as there are the areas of rough grassland and scrub. The site also has some value to amphibians for refuge and/or hibernation as there are collapsed walls and rubble piles around the site; however the site is isolated amongst short grazed grassland habitat which is not ideal for amphibians commuting across the landscape.
- 5.3.4 We consider that the site is unlikely to be of any importance to local amphibian populations due to its isolation in the local landscape and distance from ponds.

## **5.4 Badger**

- 5.4.1 There are no records of badgers within 2km of the site.
- 5.4.2 Badger setts do not occur on site or within 30m of its boundaries.



5.4.3 There were no indications of badger activity found on site, such as runs, foraging signs or latrines.

5.4.4 We consider badgers to be absent from the local area.

## **5.5 Bats**

5.5.1 There are 8 records of two bat species within 2km of the site.

5.5.2 Four of these bat records are for Daubenton's bat (*Myotis daubentonii*), a species which is rarely recorded far from water. All of the local records of this species are restricted to Chipping Brook and the River Loud to the West.

5.5.3 The foraging habitat at the site is extremely poor for bat species being on a fell top, exposed and windy and lacking any features likely to give rise significant numbers of invertebrates. There are no trees and no water on the site. Higher quality habitats are

5.5.4 There are three buildings/structures on site which were assessed for their potential to support roosting or hibernating bats (see Figure 1 for building/structure locations):

- FTN1 - a dilapidated static caravan with drawn curtains and light shining through the entire internal space. This structure has negligible potential for any type of use by bats;
- FTN2 - A timber shed built over a block and concrete panel base and roofed with fibre cement corrugate sheeting. Much of the internal space is illuminated by holes in the roof where light shines in. There are no voids crevices or gaps in any of the materials inside or outside the building. This building was judged to have a negligible potential for use by bats.
- FTN3 - A long, brick walled and iron framed piggery, roofed with both sheet metal corrugate and fibre cement corrugate. There are numerous darkened, separated stalls inside the building, all of which are roofed with sheet metal corrugate. No voids, crevices, gaps or other features were observed inside the building that would offer suitable roosting potential for bats. We consider the building to offer negligible roosting potential for bats.



\*Habitats outside the site boundary are indicative only and have been mapped from within the site boundary or from publicly accessible land

## **5.6 Birds**

- 5.6.1 There are numerous records of birds within 2km of the site. Pheasant (*Phasianus colchicus*) and grey partridge (*Perdix perdix*) were recorded on site in considerable numbers.
- 5.6.2 An abandoned blackbird nest was recorded within the piggery (FTN3) on site. There are numerous nesting opportunities for birds on site, within the buildings but there appears to have been little uptake.
- 5.6.3 Upland nesting species such as curlew (*Numenius arquata*) or lapwing (*Vanellus vanellus*) may nest around the periphery of the site.
- 5.6.4 The foraging opportunities around the site are poor for birds. Vegetative diversity is low and there are unlikely to be an abundance of invertebrates and seeds on site. This may reflect on the low uptake of nesting opportunities within the buildings on site.
- 5.6.5 There was no evidence of use of the buildings by larger species such as barn owl (*Tyto alba*) or kestrel (*Falco tinnunculus*) for roosting or nesting. No pellets or whitewash were present within the buildings.
- 5.6.6 Swallows are unlikely to be abundant at the site due to the windswept, hilltop location of the site.

## **5.7 Brown Hare**

- 5.7.1 There are six records of brown hares within 2km of the site, but not within 1km. All the records occur in the lowland areas to the East.
- 5.7.2 Brown hare are a UK BAP priority species.
- 5.7.3 No indication of brown hares was recorded on the site.
- 5.7.4 The site has some potential for brown hares to create forms but use of the site is likely to be limited due to its open and exposed upland nature.
- 5.7.5 A risk assessment of the site in respect of its future potential for and value to brown hares could be adequately made. We consider the risk to brown hares is very low.

## **5.8 Invertebrates**

- 5.8.1 Numerous notable invertebrates have been recorded within 2km of the site.
- 5.8.2 No deadwood or vegetation on site was recorded which would provide an important resource for invertebrates in the local area.
- 5.8.3 Given the poor quality habitats contained within the site in comparison to the wider area, it is not considered that this site is of any local significance for invertebrates.

5.8.4 Impacts on the species are considered likely to be negligible, post development domestic gardens will create greater habitat diversity in the area than already exists.

## **5.9 Reptiles**

5.9.1 There are no records for reptiles within 2km of the site.

5.9.2 The site has some value to reptiles having open and vegetated areas and potential refugia. There does not however appear to be any high quality foraging habitat on the site.

5.9.3 The site is isolated on a fell top and not connected to any high quality reptile habitats.

5.9.4 We do not consider reptiles are likely to occur within the bounds of the site.

## **5.10 Statutory and Non-Statutory Sites**

### Direct Impacts:

5.10.1 There are no statutory or non-statutory sites which are connected to the site such that site development would directly affect the dispersal of species between them or directly impact upon their integrity.

5.10.2 The habitats on site do not represent or are linked to those found in any of the statutory or non-statutory sites locally.

### Indirect Impacts:

5.10.3 There are no statutory or non-statutory sites which are connected to the site such that site development would indirectly affect the dispersal of species between them or indirectly impact upon their integrity.

## **6. MITIGATION/RECOMMENDATIONS**

### **6.1 *Compensatory planting and habitat enhancement***

- 6.1.1 The landscaping scheme should utilise plants which are native and wildlife friendly. Wildflower seed could be used to plant verges to enhance the ecological value of the site and continuity between the site and the wider area.
- 6.1.2 Hedgerows, preferably species rich, could be planted around the site. These would not only enhance the ecology of the site but also offer services such as a wind break in this notably windswept location.
- 6.1.3 Tree planting across the site would provide further ecological opportunities and wind breaking for the site. The structural diversity of the site is very limited as existing.

### **6.2 *Amphibians***

- 6.2.1 There is no requirement for specific mitigation for these species. There are currently no suitable breeding sites on or near the site. However, as a precautionary measure, in the unlikely event that any signs of any amphibian activity is subsequently found, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.
- 6.2.2 Rubble should be moved by hand from the site.
- 6.2.3 In order to further minimise impacts on amphibians the following points should also be followed.
  - All work must take place during daylight hours as amphibians are more likely to be commuting over night and this will ensure the risk to any amphibians commuting through the site will be minimised.
  - During the development, measures should be put in place to discourage amphibians from using the development area, the creation of any piles of earth, materials and rubble which could form potential artificial hibernacula and refuge should be avoided at all times. It is recommended that any spoil or rubble will be removed immediately to skips, or on hard standing or short grass. This will ensure that no potential amphibian hibernation or resting sites are created.
  - The storage of all loose materials must be palletised or similar so they are off the ground whenever possible.
  - Should any trenches and excavations be required, an escape route for animals that enter the trench must be provided, especially if left open overnight. Ramps should be no greater than of 45 degrees in angle. Ideally, any holes should be securely covered. This will ensure amphibians are not trapped during work.
  - All excavations left open overnight or longer should be checked for animals prior to the continuation of works or infilling. Back filling should be completed immediately



after any excavations, ideally back filling as an on-going process to the work in hand.

### **6.3 Badger**

6.3.1 We consider it unlikely that badgers occur in the area. However; as a precautionary measure, for badgers and other species, the following precautionary points should be followed:

- All work must take place during daylight hours as badgers are more likely to be commuting over the site at night and this will ensure the risk to any badgers passing through the site will be minimised.
- Should any trenches and excavations be required, an escape route for animals that enter the trench must be provided, especially if left open overnight. Ramps should be no greater than of 45 degrees in angle. Ideally, any holes should be securely covered. This will ensure badgers are not trapped during work.
- All excavations left open overnight or longer should be checked for animals prior to the continuation of works or infilling. Back filling should be completed immediately after any excavations, ideally back filling as an on-going process to the work in hand.
- Boundary fences/walls should incorporate gaps at their base to facilitate the passage of badgers across the site.

### **6.4 Bats**

6.4.1 Work at night should be restricted, new planting within the site should enhance structural diversity and light spill from buildings should be minimised.

6.4.2 New roosting provision for crevice dwelling bats could be incorporated into the buildings on site.

6.4.3 Overall it is considered there is more than sufficient scope for mitigation and compensation at the site such that there will be no adverse impact on the favourable conservation status of bats affected by the proposal.

### **6.5 Birds**

6.5.1 Nesting by birds within the development area is considered likely to occur but only at low numbers. Birds may nest within hedges on the periphery of the site.

6.5.2 Nest boxes could be erected on the new buildings to replace the opportunities lost in the demolished buildings.

6.5.3 Any vegetation to be trimmed or cleared should be checked for nesting birds before it is removed. Ideally this should occur outside the bird nesting period March-September. If vegetation clearance is to occur in the March-September period a check for nesting birds should be conducted first by a suitably qualified individual.

- 6.5.4 New planting within the site will enhance the ecological functionality of the site for breeding birds.
- 6.5.5 If nesting birds are found at the site all site works shall cease and further ecological advice shall be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

## **6.6 *Brown Hares***

- 6.6.1 There is no requirement for specific mitigation for this species. However, as a precautionary measure, in the unlikely event that any signs of any brown hare activity is subsequently found, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.
- 6.6.2 The points in respect of not working at night and leaving open trenches with means of escape detailed for badgers are also applicable to this species.

## **6.7 *Invertebrates***

- 6.7.1 Landscaping should include native or wildlife friendly species including night flowering plants.
- 6.7.2 Contaminants should not be allowed to enter the soils on site during work. To this effect, spill kits should be provided on site. Re-fuelling of all plant and machinery should be undertaken away from open drains and water courses. Drip trays should be used under static machinery.

## **6.8 *Reptiles***

- 6.8.1 There is no requirement for specific mitigation for these species. However, as a precautionary measure, in the unlikely event that any signs of any reptile activity is subsequently found, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.
- 6.8.2 The points in respect of not leaving open trenches without means of escape detailed for badgers are also applicable to these species.

## 7. CONCLUSION

- 7.1.1 Ecological surveys, site appraisals and impact assessments were carried out with respect to land comprising a former piggery. It is proposed the site will be redeveloped.
- 7.1.2 Nesting birds are known to occur in the local area, there was however no conclusive evidence of any specifically protected species regularly occurring on the site or the surrounding areas which would be negatively affected by site development following the mitigation proposed.
- 7.1.3 The vegetation to be cleared has a low ecological significance in the local area.
- 7.1.4 Landscaping will promote structural diversity in both the canopy and at ground level and should encourage a wider variety of wildlife to use the site than already occurs.
- 7.1.5 Contractors will be observant for protected species and all nesting birds. Should any species be found during construction, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.
- 7.1.6 I certify this report has been compiled in accordance with the code of professional conduct for the Chartered Institute of Ecology and Environmental Management and The Royal Institute of Chartered Surveyors and reflects my objective opinion of the facts found in relation to the instruction received and information available based upon the methodology, assumptions and constraints detailed within this report.