

Development Plans
South Lakeland District Council
Lowther Street
Kendal
LA9 4DL

Our Ref 16.45

Date 14/12/16

Sirs,

**AONB DRAFT DPD
CONSULTATION RESPONSE**

This response is submitted on behalf of Mr Craig Russell, Beetham Holiday Homes, in response to the AONB Draft DPD consultation. Principally this objection relates to the wording of Policy ASI2 – Camping, Caravan and Visitor Accommodation. The grounds of objection are as follows:

- There is no definition given to clearly define the difference between the different types of allowable units, and fail to recognise that a 'caravan' can be as low impact as a 'yurt' or 'Pod'. 'Caravans' do not have to be fixed to the ground or to services and are moveable. Conversely many 'pods' and 'yurts' have fixed bases and fixed services. Why are 'pods' and 'yurts' acceptable but no other types? If someone calls a building a 'yurt', will that make it acceptable? If the new unit complies with the description in in para 4.8.8 does that make it acceptable regardless of what it is called? The terms, if used, need to be very clearly defined for each type. It is currently very unclear and imprecise.
- The policy cites no new touring sites will be allowed. This is misleading and incorrect as Certified Locations will still occur and without control. The needs acknowledging.
- Why would a change from touring vans, which can be in a variety of colours, to well-designed new units be harmful to the character of the AONB?
- What evidence is there for preventing change from a touring site to static site? Surely in locations with restricted access, the change from tourers would represent a highways benefit? What if there is no market demand for touring sites? Should a business be forced to retain an unviable business use? This is in conflict with Para. 21 of the NPPF which requires policies to be flexible to changing economic circumstances.
- Similarly, the policy amounts to a 'blanket ban' on expansion of existing sites. This is in clear conflict with the NPPF Para 21 (failing to allow sites to respond to changing economic circumstances, Para 28 (refusing to consider sustainable development, failing to allow 'expansion of tourist and visitor facilities', failing to support rural businesses).
- Where is the evidence to support the requirement for new units to be for 'holiday use AND short term letting only'? Many sites operate well with long term holiday lets, with the economic evidence being these visitors tend to support the local economy more than short term lets. Short terms lets also have higher traffic movements. This wording would be in conflict with the NPPF and multiple permissions granted since 2011 to remove short term restrictions as these were no longer supported by national guidance and policy. To reverse this decision would need supporting evidence to set aside the NPPF which allows flexibility.
- The policy conflicts with Para 4.8.8 of the document, which states it allows diversification into new markets. There is also conflict that the policy restricts the types of units allowed, but this paragraph allows 'low impact materials, organic shapes and darker colours' – why

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can a lodge not be designed with these controls to have low landscape impact? If a 'lodge' is designed to meet these criteria would it be considered 'low impact' and acceptable'.

- The policy is in clear conflict with the adopted South Lakeland Core Strategy CS7.6 which allows expansion of tourist attractions; and Policy DM14 of Lancaster's Development Management Document which allows extensions and expansions where there is no adverse impact. Whilst the AONB and local residents may wish there to be no more development, where an expansion of an existing site has no or low landscape impact, or it is within an existing screened site, how does this harm the character of the AONB? The AONB draft document needs to accord with the main Core Strategy/Development Management policies. Unless there is significant evidence to the contrary, there is no reason to prevent appropriate expansion of suitable existing sites.
- The adopted LPA plans do not define 'low impact accommodation'. Where is the evidence that this is an appropriate definition and should be the only development allowed, contrary to adopted local and national policy to provide a mix of accommodation types to meet visitor demands?
- The Policy conflicts with draft Policy AS10 which supports development that bring economic benefits; diversification; and expanded leisure facilities. This is a flexible policy to bring economic benefits that would be undermined by a tourism policy which creates blanket bans on changes to current sites to respond to demands and need, and defines what kind of tourists come to the area.
- The policy conflicts with The Tourism Strategy for Cumbria 2008 -2018, which requires high quality visitor experiences; sustainable development; development of tourism outside the main centres; supporting small local businesses to respond to needs; and broaden the tourism offer at all levels.
- The Lake District National Park, which has similar levels of protection for landscape, allows suitable, sustainable tourism development within its boundaries. The English National Park Authorities Association has an adopted position statement on sustainable tourism as follows: 'any form of development, management or tourist activity which ensures the long term protection and preservation of natural, cultural and social resources and contributes in a positive and equitable manner to the economic development and well-being of individuals living, working or staying in protected areas'. This is equally applicable to the AONB and will protect the character of the area by applying these principles without resorting to blanket bans on changes. If expansion and growth are acceptable in National Parks, similarly they should be allowed in the AONB.

The AONB must rightly seek to protect and preserve its character but this should not mean creating policies that have 'blanket bans', denying opportunity to consider each development on its own merits and against the specific context at that time. In conclusion, the policy is poorly defined, un-evidenced, and overly restrictive and conflicts with both National and Local adopted planning policy. It needs to be re-written to resolve these issues.

Yours Sincerely



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Development Plans
South Lakeland District Council
Lowther Street
Kendal
LA9 4DL

Our Ref 16.45

Date 05/01/17

Sirs,

**AONB DRAFT DPD
CONSULTATION RESPONSE**

This response is submitted on behalf of Mr Craig Russell, Beetham Holiday Homes, in response to the AONB Draft DPD consultation. A possible site for tourism development was submitted during the call for sites. According to the Spreadsheet appended to the consultation, the site was not taken forward because of exclusion criteria (Woodland, Meadow and Pavement Area). Whilst this is, in general terms, correct, the specifics of the site are more complicated.

As part of ongoing management of the site, Mr Russell has had an ecological appraisal of the possible site prepared, and this is submitted with this letter. This shows that in fact there are large areas of open space or shrub land (not meadows) which have no exposed limestone. Thus there are large areas of the site which in real terms are not affected by meadow or limestone designations. The woodland is under active management and bio-diversity is also managed. But there are areas between the trees, already used by the site for recreational purposes that would be ideal for tourism allocation which would not conflict with the exclusion criteria.

The suggested site boundaries submitted on the plan are entirely flexible and were intended to give a general idea of the land available, but clearly the areas available that would not conflict with exclusion criteria are much smaller. Further a tightening of the boundary would change sustainability criteria as there would be no loss of agricultural land (none exists) or woodland.

With regard to the Deliverability Criteria, the site does have its own sustainable sewage system on site including a Klargester water treatment system as well as power. It is uncertain why the 'topography' is considered a prohibitor to development, being a level site beside an existing sloping site. It is not elevated or prominent. This appears to be an error in the assessment process.

Therefore, we would like the site to be reconsidered for tourism development, given the additional information available to you now.

It is also noted that it is not proposed to designate any tourism sites as allocated sites. Given the demands to control development need to be balanced against increasing demand for tourism; this is surely a potential way to control development in a much more pragmatic way than 'blanket bans'.

Yours Sincerely



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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) and the Royal Institution of Chartered Surveyors (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

This report has been printed on recycled paper as part of our commitment to achieving both the ISO 9001 Quality Assurance and ISO 14001 Environmental Assurance standards. Envirotech have been awarded the Gold standard by the Cumbria Business Environmental Network for its Environmental management systems.

Author	Emma Wainwright	Date	13/09/2016
Checked by	Andrew Gardner	Date	23/12/2016
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1. EXECUTIVE SUMMARY

- 1.1.1 Envirotech NW Ltd were commissioned in June 2016 by Beetham Holiday Homes to carry out an ecological appraisal of land to land adjacent to Beetham Holiday Homes. The survey was to inform potential future development/ expansion of the Beetham Holiday Homes Site.
- 1.1.2 A data search and desk study of the site and an area within 2km of the site were undertaken to establish the presence of protected species and notable habitats.
- 1.1.3 The site was then visited by Envirotech NW Ltd on eight occasions between 2nd August 2016 and 14th September 2016. A full botanical survey of the site was initially undertaken and this was followed by surveys to establish the presence or absence of bats, amphibians, nesting birds, brown hares, badgers, reptiles and red squirrels at the site or in proximity such that they may be affected by the proposed development.
- 1.1.4 Vegetation within the site is of high ecological value. The development will make steps to manage these habitats. Notably by preventing unimproved grassland being overtaken by scrubland. Woodland on and adjacent to the site will be retained and steps can be taken to improve the ground flora in these areas.
- 1.1.5 Moderate numbers of bats were found to forage over and around the site. No bats were recorded roosting on or near core development areas. It is proposed that some roosting provision for bats will be incorporated onto site post development.
- 1.1.6 Full reptiles surveys were undertaken at the site. These did not indicate that the site is of high value for these species. A mosaic of habitats and their structures will be retained on site.
- 1.1.7 Common toad was recorded on site. New water bodies will be incorporated into the design to provide a potential breeding habitat which does not currently occur on or adjacent to the site.
- 1.1.8 Birds are likely to utilise scrub on site for nesting between March and September. Any vegetation clearance should therefore be undertaken outside of this period.

2. INTRODUCTION

2.1 Background

2.1.1 In June 2016 Envirotech NW Ltd were commissioned by Beetham Holiday Homes to carry out an Ecological Appraisal of land adjacent to the holiday park with a central grid reference SD 49371 77961 (Figure 1). A site investigation was undertaken and a report compiled which includes recommendations for any future actions and or mitigation required.

2.1.2 The survey was to inform potential future development/ expansion of the Beetham Holiday Homes Site.

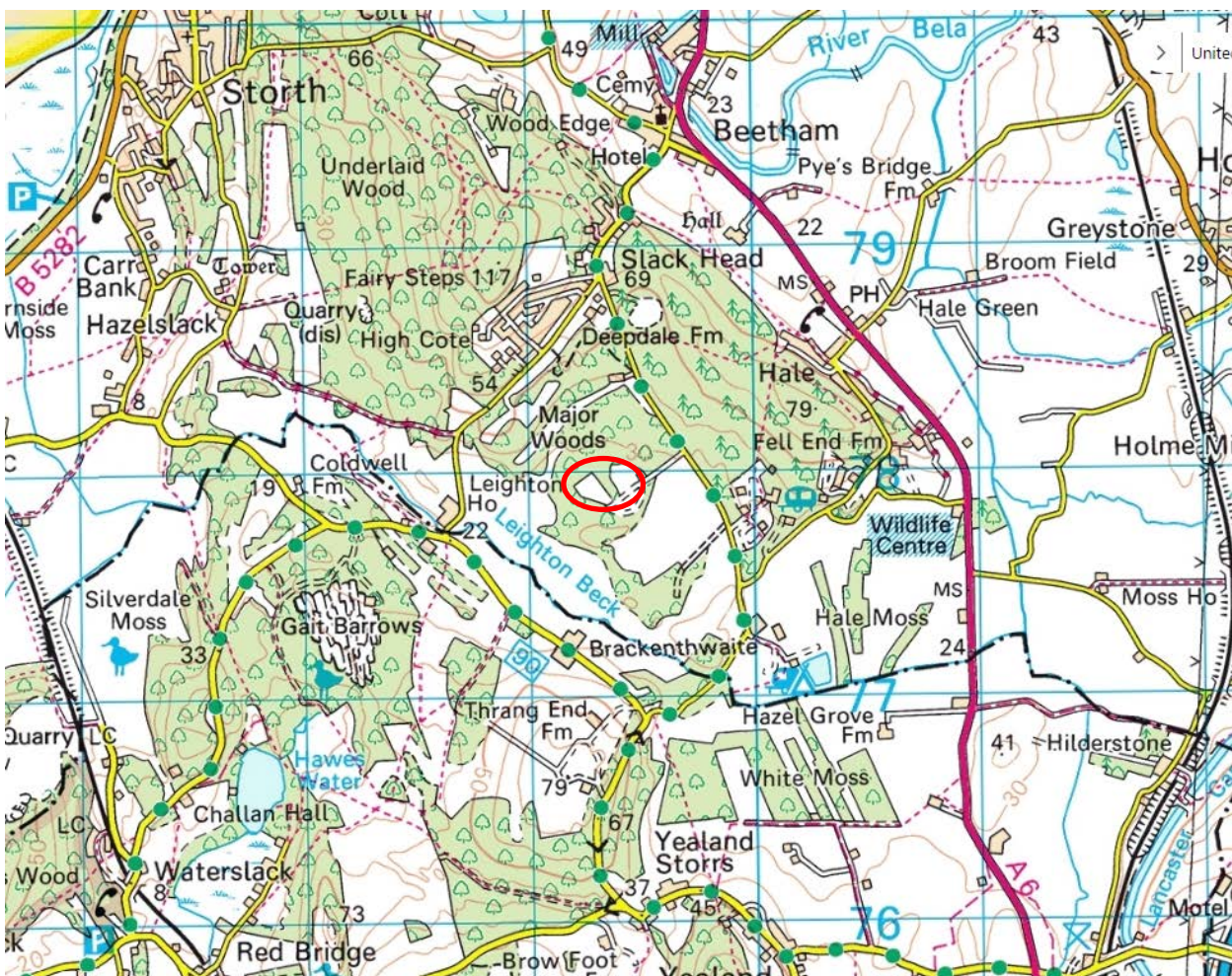


Figure 1 Site location at SD 49371 77961 circled red.

2.2 Objectives

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.

3 METHODOLOGY AND SOURCES OF INFORMATION

3.1 Data Search

- 3.1.1 The Envirotech, CBDC 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.
- 3.1.2 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.
- 3.1.3 Google Earth and Google Street View were consulted to establish the presence of any features of ecological importance within the local area.

3.2 Vegetation and Habitats

- 3.2.1 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).
- 3.2.2 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).
- 3.2.3 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*).

3.3 Timing and Personnel

3.3.1 The site and surrounding land was visited on the 2nd, 15th, 18th, 23rd and 31st August and 2nd 7th and 14th September 2016.

3.3.2 During the visit, weather conditions were suitable for the survey types undertaken.

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Natural England Bat Class Licence (Level 2)
Natural England Barn Owl Licence
Natural England Great Crested Newt Licence (Level 1)
- (MT) Mr Matthew Thomas BSc (Hons), Grad CIEEM
Natural England Bat Class Licence (Level 2)
Natural England Barn Owl Licence
Natural England Great Crested Newt Licence (Level 1)

- (EW) Miss Emma Wainwright BSc (Hons) Grad CIEEM
Natural England Great Crested Newt Licence (Level 1)
Unlicensed bat surveyor with three years bat scoping and emergence survey experience
Accredited Agent on Natural England Bat Class Licence (Level 2)
- (HG) Mrs Hannah Gardner BSc (Hons), MSc, MRICS, CEnv
Natural England Registered Roost Visitor (Trainee)

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 Water-bodies located within or adjacent to the study area were identified and where access was possible were assessed for their potential to support great crested newts. The criteria used in the assessment are based on those contained in the Herpetofauna Workers Manual and Oldham et al, 2000, and in applying these criteria a precautionary approach was adopted. The pond assessment was undertaken in order to determine which water-bodies, based on their potential to support great crested newts, should be subject to presence/absence surveys.
- 4.1.4 Following the criteria developed by Oldham et al (2000), the HSI tool developed for use with great crested newts and forming part of Natural England's EPS Licensing process was used to determine the suitability of ponds for great crested newts. The HSI was developed as a tool to aid fieldworkers to give ponds and their surrounding habitat a numerical score in terms of their suitability for great crested newts.

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 protects badgers from being killed, injured or disturbed whilst occupying a sett. 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
- Surveys were also undertaken at night, during the bat surveys, by scanning the study area with a torch.

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)) and Collins, J. (ed) (2016) 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 behaviour 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 As a result of the potential suitability of the habitat around the site for foraging bats, two bat activity surveys were deemed necessary. The surveys were based upon standard guidelines Hundt (2012), Collins, J. (ed) (2016) and NCC (1987) and Mitchell-Jones (2004) and was undertaken in suitable weather conditions by suitably qualified and experienced personnel.

4.3.5 The survey methods comprised a transect route which was walked in order to cover all on-site habitats from sunset until light levels dropped to the extent that bat flight heights could not be determined and walking over the site in the dark was judged to be unsafe.

4.3.6 Two Anabat Express automatic detectors were left on the site between the 14th and 22nd August 2016. Call analysis was undertaken using KALEIDOSCOPE 3.1.8 and Bats

of Europe 3.1.3 S/A:+1.

- 4.3.7 In addition to the activity survey, trees and structures on and within the survey area boundary were assessed for their potential to support roosting or hibernating bats. This comprised a close inspection of all trees and an external visual assessment of structures within and on the site boundaries to allow an assessment of their potential to be used by bats to be made.
- 4.3.8 Trees were all assessed in accordance with Collins, J. (ed) (2016).

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 Bird species and behaviour was noted during the other field surveys. All areas are covered equally, in order to avoid the subjective survey of better quality 'bird habitat'. All birds displaying breeding behaviour were recorded.

4.5 Invertebrates

- 4.5.1 A general assessment was made of the study area's suitability for supporting invertebrates during the phase 1 survey. The study area's habitat diversity, species-rich composition and variation in height and microtopography of vegetation resulted in our belief that a good diversity of invertebrates would be likely to occur across the site.
- 4.5.2 The presence of invertebrates was noted during the other surveys which were undertaken.

4.6 Red Squirrel

- 4.6.1 The site was walked over and checked for signs of red squirrels (*Sciurus vulgaris*) a note was made of whether these were few, moderate or many. This was done by looking for feeding activity such as the remains of tree seeds, and whether or not there are dreys. Tree seed availability can vary greatly at different times of the year and from year to year. Seeds of broadleaved trees will usually be available from the autumn and the abundance of seeds will decline through winter and spring. Conifer seeds are available from summer, and often through to the following spring or summer. Thus, looking for signs of squirrel feeding activity can provide useful clues as to whether squirrels are currently resident and feeding within the wood.

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 Due to the suitability of habitats within and adjacent to the site, full reptile surveys were undertaken at the site. This involved deploying refuge mats and undertaking checks for the presence of reptiles over a subsequent seven site visits. A full reptile report is appended.

4.8 Survey limitations

- 4.8.1 The surveys were undertaken throughout mid summer. At this time of year most plant species are easily identified although the activity of some early flowering species is reduced.
- 4.8.2 There was heavy rainfall during the middle of the survey period which resulted in one of the anabat detectors ceasing to work.
- 4.8.3 The duration, extent and scope of the surveys were considered sufficient to plan appropriate mitigation and recommend additional precautionary survey work required prior to the commencement of work.
- 4.8.4 No significant survey limitations were encountered.

5 RESULTS

5.1 *Data Search*

- 5.1.1 Envirotech and CBDC 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 statutory designated site is Marble Quarry and Hale Fell SSSI c.500m to the East (Figure 3a). In respect of Non-statutory designations the site is within Major Woods which is subject to a limestone pavement order, is classified as a Biological Heritage Site and is of Invertebrate significance (Figure 3b).

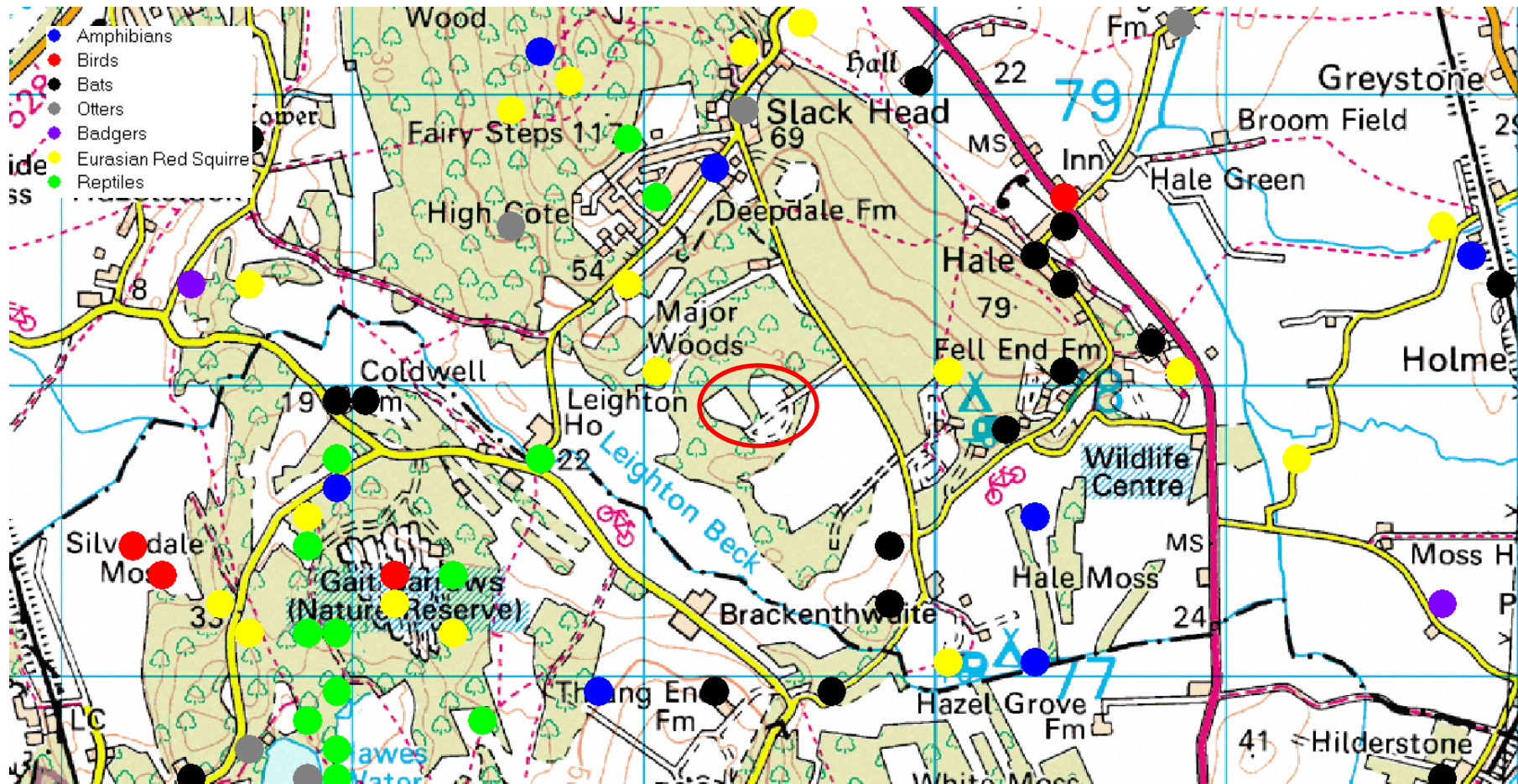


Figure 2 Notable species records site location is circled red.

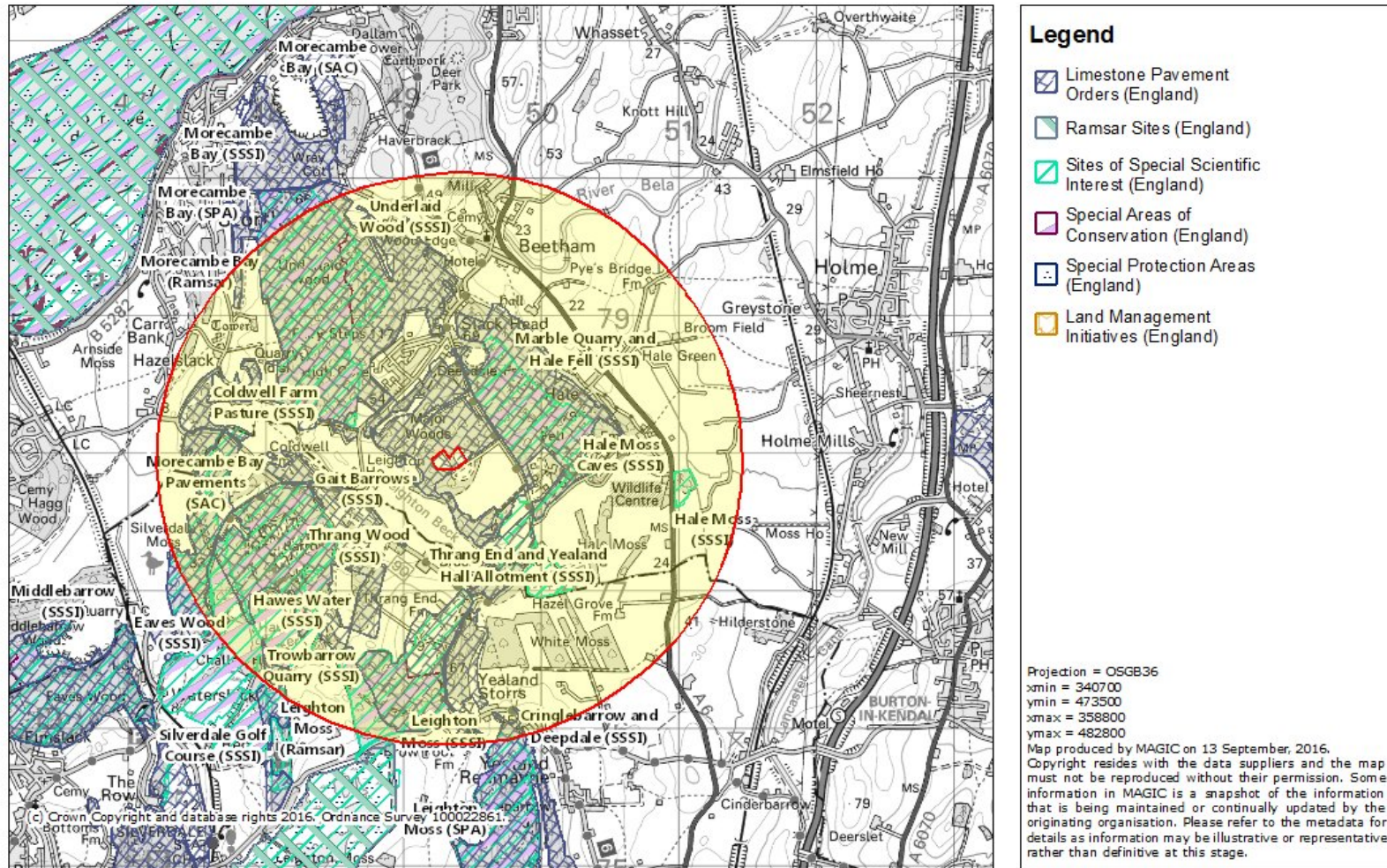

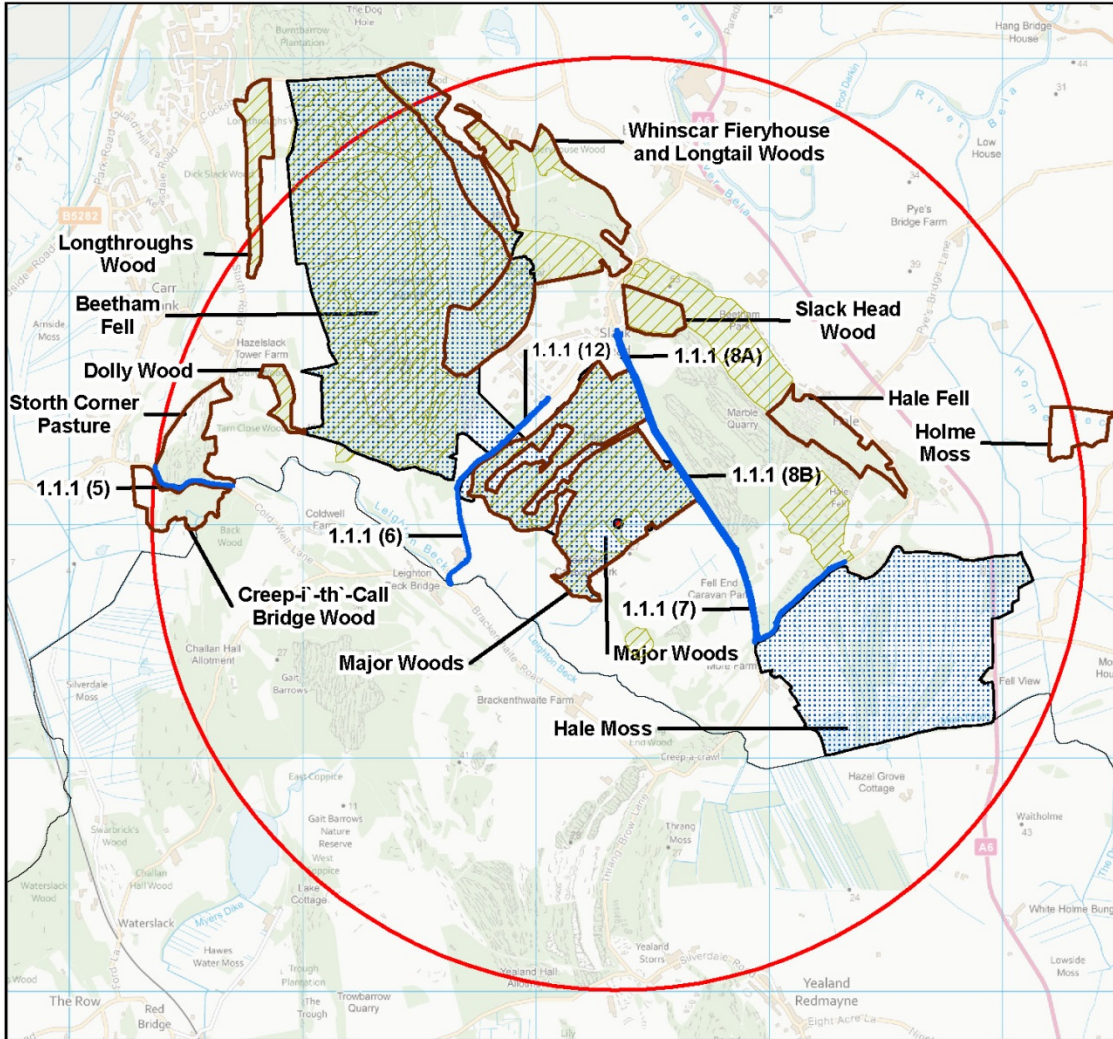







Figure 3a Statutory designated sites 2km buffer.

	Cumbria Biodiversity Data Centre (CBDC): Non-Statutory Sites Search	
	For: Andrew Gardner at Envirotech Centroid: SD49357800 Site name: Beetham Holiday Homes Search Buffer: 2km Search Date: 23/09/2016	N.B. Sites are displayed only if they exist within the search area



Key  County Wildlife Sites  Site of Invertebrate Significance  Special Roadside Verges  Ancient Woodland	0 250 500 1,000 Meters  Any queries in the first instance contact: Dr Moustafa Eweda Biological Data Officer Cumbria Biodiversity Data Centre (CBDC) T. 01228 618770 E. dataofficer@cbdc.org.uk
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 Tullie House Museum and Art Gallery Trust Contains Ordnance Survey Data Crown copyright and database right 2016

Figure 3b Non-Statutory designated sites 2km buffer.

6 PHASE 1 SURVEY RESULTS

6.1 *Habitat Results*

- 6.1.1 The site comprises two grassland fields with scattered and dense scrub around their peripheries which graduates out into woodland. Woodland also runs through the centre of the site. Beetham holiday homes caravan park continues to the South.
- 6.1.2 See Figure 5 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	Unimproved grassland	<p>Grassland in the West of the site forms a glade within the woodland. This grassland is species rich and appears to have had low disturbance levels despite being used recreationally by dog walkers from the caravan park. Betony (<i>Stachys officinalis</i>) is frequent throughout the sward. It is believed that the grassland is cut yearly, reducing the prevalence of bracken (<i>Pteridium aquilinum</i>) which encroaches around the margins of the grassland. Additional species present are perforate St John's-wort (<i>Hypericum perforatum</i>), meadowsweet (<i>Filipendula ulmaria</i>), eyebright (<i>Euphrasia officinalis</i>), common knapweed (<i>Centaurea nigra</i>), agrimony (<i>Agrimonia eupatoria</i>), common cat's ear (<i>Hypochaeris radicata</i>), glaucous sedge (<i>Carex flacca</i>), lady's mantle (<i>Alchamilla vulgaris</i> agg.), soft rush (<i>Juncus effusus</i>), bramble (<i>Rubus fruticosus</i> agg.), tormentil (<i>Potentilla erecta</i>), white clover (<i>Trifolium repens</i>), creeping bent (<i>Agrostis stolonifera</i>), ribwort plantain (<i>Plantago lanceolata</i>), rough meadow grass (<i>Poa trivialis</i>), common birds-foot-trefoil (<i>Lotus corniculatus</i>), common mouse-ear (<i>Cerastium fontanum</i>), Yorkshire fog (<i>Holcus lanatus</i>), silverweed (<i>Potentilla anserina</i>), common daisy (<i>Bellis perennis</i>), devil's-bit-scabious (<i>Succisa pratensis</i>) common spotted orchid (<i>Dactylorhiza fuchsii</i>), yarrow (<i>Achillea millefolium</i>), water mint (<i>Mentha citrata</i>), cock's foot (<i>Dactylis glomerata</i>), ragwort (<i>Senecio jacobaea</i>) and red bartsia (<i>Odontites vernus</i>). There is very limited limestone partly or wholly exposed at the surface (limestone pavement) within the meadow. That which occurs is limited to the South perimeter.</p>
BTN2	Semi-improved grassland	<p>Grassland in the East of the site has lower species richness than that in the West although it is not improved. In this area the soft rush is frequent within the sward although not at sufficient levels to be categorised as marshy grassland. Silverweed is equally frequent. Also present are lady's mantle, creeping thistle (<i>Cirsium arvens</i>), bracken, common knapweed, marsh thistle (<i>Cirsium palustre</i>), dandelion (<i>Taraxacum officinale</i>), greater bird's foot trefoil (<i>Lotus pedunculatus</i>), glaucous sedge, red dead nettle (<i>Lamium purpureum</i>), betony, agrimony, ribwort plantain, meadowsweet, eyebright, rough meadowgrass, creeping bent, water mint, Yorkshire fog and redshank (<i>Persicaria maculosa</i>).</p>

BTN3	Scrub dense/continuous -	Dense scrub runs around the peripheries of the grassland areas. Blackthorn (<i>Prunus spinosa</i>) is frequent in this habitat along with hazel (<i>Corylus avellana</i>), goat willow (<i>Salix caprea</i>), crab apple (<i>Malus sylvestris</i>), hawthorn (<i>Crataegus monogyna</i>) and buckthorn (<i>Rhamnus cathartica</i>) also present.
BTN4	Broadleaf woodland	Woodland cuts through the centre of the site and continues to the North. The canopy of the woodland varies in structure from open areas where silver birch are present to dense areas where wych elm (<i>Ulmus glabra</i>), ash (<i>Fraxinus excelsior</i>), oak (<i>Quercus</i> sp.) and yew (<i>Taxus baccata</i>) are present. Within the understory are hazel, hawthorn, blackthorn and rowan (<i>Sorbus aucuparia</i>). Patches of dog's mercury (<i>Mercurialis perennis</i>) are occasional in the ground flora. Herb Robert (<i>Geranium robertianum</i>), hart's tongue fern (<i>Asplenium scolopendrium</i>), bramble, wood avens (<i>Geum urbanum</i>) and tufted hair grass (<i>Deschamsia cespitosa</i>) are also present. Limestone pavement occurs within this part of the site.
BTN5	Scrub - scattered	Scattered scrub encroaches from the dense scrub into the grassland. Species present are blackthorn, hawthorn and crab apple.
BTN6	Intact hedge - species poor	An intact hedge runs between the West of the site and the amenity grassland playing field adjacent. Woody species within this hedge are buckthorn, blackthorn, hawthorn, hazel, cherry (<i>Prunus avium</i>) and rose (<i>Rosa canina</i>). Bracken is frequent at its base with tutsan (<i>Hypericum</i> sp.) also present.
BTN7	Caravan park	Beetham Holiday Homes caravan park continues to the South of the site. This includes areas of open grassland, scattered trees and scrub, introduced shrubs, hardstanding and numerous static caravans.
BTN8	Cultivated/ land - disturbed amenity grassland	Amenity grassland to the East of the site forms a playing field of again reduced species richness to those present on site.
FTN1	Amphibians	There are no ponds on site. Soakaways within the woodland did not contain any standing water during any of the surveys. Common toad (<i>Bufo bufo</i>) was however recorded on site during reptile surveys.
FTN2	Invertebrates	The scrub and species rich grasslands on site offer suitable habitat for a range of invertebrate species. Orders noted on site during surveys included Lepidoptera, Anisoptera and Hymenoptera.

FTN3	Bats	Habitats at the site and in the surrounding area have a high potential for use by foraging bats.
FTN4	Nesting birds	The scrub and woodland within the site are of sufficient density to offer significant potential for birds to nest.

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



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



Grassland in the East of the site has reduced species richness to that in the West.



Scrub is dense and continuous around the peripheries of the grassland glades.



Grassland in the West of the site is unimproved and species rich. Betony is frequent across the sward.



A gappy hedgerow bounds the site from the amenity grassland in the East.



Woodland occurs between grassland areas and extends to the North of the site.



A soakaway was dry during surveys.

Table 2 *Photographs*

6.2 Vegetation

- 6.2.1 Details of the plant species found on site are included in the target notes. Woodland and scrub habitats present on site are known to occur frequently in the local area. Grassland habitats are also likely to occur although much less frequently.
- 6.2.2 The plant assemblages within the unimproved grassland on site are species rich and of significant ecological value. To maintain unimproved grassland and halt the succession of this habitat into scrubland and eventually woodland, management is required. Scrub has already begun to encroach, depleting the areas of the rarer grassland habitat.
- 6.2.3 Although the scrubland has its own ecological value, most notably to groups such as birds, it is a far more frequently occurring habitat locally. It is therefore considered that the site is managed post development to maintain a mosaic of grassland, woodland and scrubland areas, without allowing scrubland to dominate.
- 6.2.4 Management at the site is currently limited to cutting once yearly. Whilst this will be beneficial to reducing cover of bracken, it does not halt the encroachment of scrubland. It is considered likely that if management remains as present scrubland will continue to encroach and the unimproved grassland will, in time, be lost.
- 6.2.5 Woodland within the site contains a range of woody species and varied canopy structure. Despite this, in many areas of the woodland, ground flora species are lacking, likely due to deer grazing. A section of woodland has been fenced to prevent this, in this area, ground flora coverage is increased.
- 6.2.6 The intact hedge bounding the site to the East contains gaps over 20% of its length and lacks notable ground flora species. Although a good diversity of woody plant species are present in its length, this hedgerow does not bound land used for agriculture or forestry and is therefore not subject to a hedgerow regulations assessment.
- 6.2.7 Montbretia (*Crocsmia x crocosmiiflora*) is present occasionally in the South of the site where it adjoins the caravan site. 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.

6.3 Amphibian

- 6.3.1 There are 29 records for amphibians within 2km of the site. Species recorded are common frog (*Rana temporaria*), common toad (*Bufo bufo*), smooth newt (*Lissotriton vulgaris*) and palmate newt (*Lisotriton helveticus*). There are no records of great crested newts (*Triturus cristatus*) within 2km of the site on the datasets searched.
- 6.3.2 There is no standing water on site or within 200m of the site boundaries. The nearest standing water is c.250m to the South-east. This pond scores a HSI of 0.57 which is below average for Great Crested Newts (Table 3).

SI1 - Location	1
SI2 - Pond area	0.9
SI3 - Pond drying	0.9
SI4 - Water quality	0.67
SI4 - Shade	0.7
SI6 - Fowl	0.67
SI7 - Fish	0.67
SI8 - Ponds	0.1
SI9 - Terr'l habitat	0.67
SI10 - Macrophytes	0.3
HSI	0.57

Table 3- HSI assessment

- 6.3.3 The proposed development will not result in the permanent loss of or a substantial negative effect on this pond.
- 6.3.4 Four common toads were recorded on site during refuge searches. Common toad is a BAP species and its presence should be accounted for in mitigation methods.
- 6.3.5 Habitats present within the site are suitable for use by a range of amphibian species in their terrestrial phases. Woodland and scrub provide potential for these species to commute and seek refuge whilst grassland will attract invertebrates suitable for foraging.
- 6.3.6 Mitigation measures should be followed in order to minimise risks to any amphibians commuting over the site during development.

6.4 Badger

- 6.4.1 Three records of badgers occur within 2km of the site.
- 6.4.2 Badger setts do not occur on site or within 30m of its boundaries, and there were no indications of badger feeding found on site.
- 6.4.3 Precautionary mitigation is considered appropriate during construction. Some fruit trees such as crab apple should be retained on site post development as these will provide a food source for badgers.

6.5 Bats

- 6.5.1 There are 27 records of seven species of bat within 2km of the site. Species recorded are common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*P.pygmaeus*), Daubenton's (*Myotis daubentonii*), Brandt's (*M. brandtii*), Natterers (*M. Nattereri*), Noctule (*Nyctalus noctula*) and Brown long-eared (*Plecotus auritus*) bats.
- 6.5.2 The foraging habitat at the site is very good for bat species being structurally diverse and including dense woodland. The species rich grassland on site will attract a range of invertebrates attractive to these foraging bats. Further extensive areas of high quality bat habitat are present locally including dense woodland (Figure 5).
- 6.5.3 To confirm the site is not used by a significant numbers of bats, two walked transects of the site for a period of 1.45hrs were undertaken, the first by two

surveyors and the second by one surveyor. Survey 1 was undertaken on 2nd August 2016 during this survey the temperature was 12°C and there was 80% cloud cover. There was no wind or rain.

- 6.5.4 This transect recorded c. five soprano and two common pipistrelle bats foraging around the West of the site throughout the survey. Two soprano pipistrelles also commuted across the East of the site into the woodland.
- 6.5.5 The second survey was undertaken on 31st August 2016 during the survey temperatures were 16°C, there was 60% cloud cover and no wind or rain. During this transect, two soprano pipistrelles were recorded foraging around the West of the site throughout the survey. Soprano pipistrelles commuted over the East of the site and along the track in the South. A whiskered/Brandt's bat commuted through the West of the site.
- 6.5.6 Two anabat express detectors were deployed on the site within the edge of the woodland. One detector only worked between the 15th and 17th August 2016. The cumulative totals from both detectors are shown on Table 4.

KALEIDOSCOPE 3.1.8							
Bats of Europe 3.1.3		MYDAU	MYNA	NYNO	PIPI	PIPY	PLAUR
S/A:+1							
	Total	4	1	83	82	68	16
	20160815	2		34	20	7	6
	20160816	1		13	26	26	4
	20160817			15	13	5	2
	20160818	1	1	3	16	21	1
	20160819			18	7	9	3
	20160820	4	1	83	82	68	16
	20160821	2		34	20	7	6
	20160822	1		13	26	26	4

Table 4- Anabat results

- 6.5.7 Anabat detectors recorded six species of bat with a clear majority being for Noctule (*Nyctalus noctula*), Common Pipistrelle (*Pipistrellus pipistrellus*) and Soprano Pipistrelle (*Pipistrellus pygmaeus*).
- 6.5.8 A low number of Brown Long-Eared (*Plecotus auritus*) were recorded along with occasional Daubenton's (*Myotis daubentonii*) and Natterer's (*Myotis nattereri*).
- 6.5.9 There are limitations to the AutoID software used and it is considered likely that the calls recorded from Daubenton's (*Myotis daubentonii*) and Natterer's (*Myotis nattereri*) are infact Whiskered (*Myotis mystacinus*) or Brandt's (*Myotis brandtii*), was were recorded during the manual surveys.
- 6.5.10 The results of the activity surveys (Figure 6) confirm our assessment of the potential for the habitats on site to support bats.
- 6.5.11 It is considered that, without mitigation, potential for foraging bats to occur at the site may be reduced by the proposals via aspects such as increased lighting and decreased vegetation cover.
- 6.5.12 We consider that collectively the habitats within, adjacent to and extending from the site will be relied upon by bats for foraging. Roosting by bats will not occur in

the areas of the site to be affected by the development.

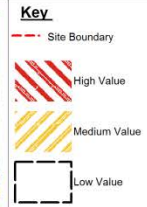
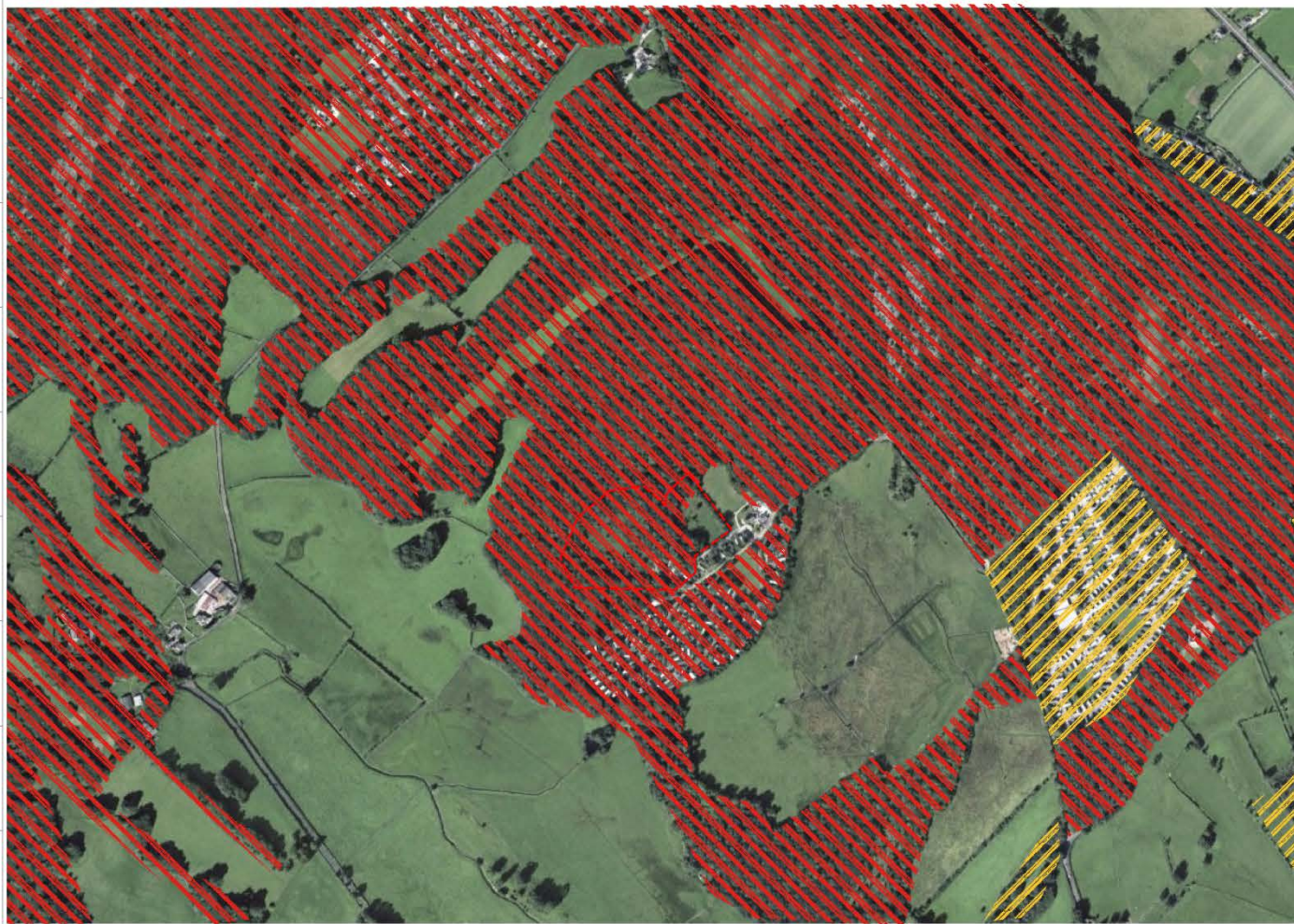


Figure 5
Results* of Extended
Bat Habitat Survey

SCALE: NTS REV 01

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



- Key**
- - - Site Boundary
 - ↔ Transect route
 - Common pipistelle flight path
 - Soprano pipistelle flight path
 - Whiskered/ Brandt's bat flight path



Figure 6
Results* of bat
activity surveys

SCALE: NTS REV 01

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

6.6 Birds

- 6.6.1 There are 6213 records of birds within 2km of the site.
- 6.6.2 The habitats within the site offer a high potential for birds to forage and nest. The scrub around the peripheries of the site is sufficiently dense and sheltered that it is highly likely to be used by nesting birds. The woodland further extends potential for birds to nest on site.
- 6.6.3 Although the grassland on site does not provide sufficient density or cover for birds to nest and is disturbed by walkers, it will provide food sources including seeds and invertebrates. Species within the scrub such as blackthorn also provide food for foraging birds.
- 6.6.4 The habitat on site is not considered to be of anything more than of local significance for birds, habitats of similar value are well represented in the local area.
- 6.6.5 Precautionary mitigation would be appropriate in respect of construction activities and compensation for lost nesting and foraging opportunities will be required.

6.7 Brown Hare

- 6.7.1 Brown hare are a UK BAP priority species. There are four records of brown hares within 2km of the site.
- 6.7.2 No indication of brown hares was recorded on the site. Habitats on site are not considered ideal for use by this species which favours open pasture fields and hedgerows. In winter it will move into woodland but there is existing elevated levels of disturbance on the site which would dissuade use in favour of adjacent sites.
- 6.7.3 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 low.

6.8 Invertebrates

- 6.8.1 Numerous notable invertebrates have been recorded within 2km of the site.
- 6.8.2 A survey for invertebrates including, but not limited to solitary and mining bees and wasps and certain butterflies was triggered as a result of this site lying in proximity to semi-natural vegetation. The method of survey for these species was to assess the habitat type affected by development and therefore its likely importance at the local level to any of these species.
- 6.8.3 During site visits a range of invertebrates were recorded on site including colonies of brimstone butterfly (*Gonepteryx rhamni*) and yellow meadow ant (*Lasius flavus*).
- 6.8.4 The plant species assemblages found on site are considered likely to attract a range or invertebrate species. The unimproved grassland in the West is considered the most valuable habitat on site for these species. Other habitats present will attract invertebrates but are frequent in the local area.
- 6.8.5 Unimproved grassland on site should as far as possible be retained in the scheme. Mitigation can be incorporated into the design and landscaping scheme with the

careful selection of plant species and substrates for the garden areas.

6.9 Red Squirrel

- 6.9.1 This species has been recorded locally on 17 occasions. The most recent record within 2km is from 2013. This species is however considered to be extinct in the local area.
- 6.9.2 No dreys were however located in the woodland on site. No feeding signs were located. The woodland will be retained in the proposed scheme.

6.10 Reptiles

- 6.10.1 There are nine records for reptiles within 2km of the site. Species recorded are slow-worm (*Anguis fragilis*), adder (*Vipera berus*) and common lizard (*Zootoca vivipara*).
- 6.10.2 The habitats on site would be suitable for use by reptiles due to the proximity of dense scrub with hardstanding and open grassland for basking. Limestone outcrops locally also provide potential for this purpose.
- 6.10.3 Due to the suitability of the habitats on site for use by these species and frequency of local records, full reptile surveys were undertaken at the site. The full reptile report is appended.

6.11 Other

- 6.11.1 The woodland within the site offers suitable habitat for use by hedgehog (*Erinaceus europaeus*). This habitat will be retained on site post development.
- 6.11.2 The habitats also provide suitable habitat for small mammals such as field vole (*Microtus agrestis*). During reptile surveys, four shrews (*Sorex araneus*) were recorded under refuge mats on site.

6.12 Statutory designated sites

Direct Impacts:

- 6.12.1 The site falls under a limestone pavement order. No rock or limestone should therefore be removed from the site.
- 6.12.2 There are no statutory designated 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.

Indirect Impacts:

- 6.12.3 There are no statutory designated 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.

6.13 Non-Statutory designated sites

Direct Impacts:

6.13.1 The site falls within Major Woods BHS. There may be degradation of the habitats within the BHS although there are also opportunities for enhancement.

Indirect Impacts:

6.13.2 The site falls within Major Woods BHS. All impacts on the BHS are likely to be direct.

7 MITIGATION/RECOMMENDATIONS

7.1 *Compensatory planting and habitat enhancement*

- 7.1.1 The grassland in the East of the site has lower species richness than that in the West and is likely to be found in similar habitats in the local area. It is suggested that loss of this habitat can be compensated for via improvements to adjacent grassland to the East. Amenity grassland to the East currently forms a playing and recreation field.
- 7.1.2 It is suggested that, whilst the centre of this grassland could remain amenity grassland, the peripheries which are infrequently used for such purposes could be subject to reduced disturbance levels. Ceasing mowing, with the exception of once yearly in early August would allow species present to set seed within these areas and allow species less tolerant of high disturbance levels to encroach.
- 7.1.3 Grassland in the West of the site is considered to be a high value habitat in the local area. Scrub is however encroaching onto this habitat and decreasing its cover. It is proposed that caravans are installed in areas which are currently scrub. Such control of the scrubland would be beneficial in maintaining the valuable grassland.
- 7.1.4 Although the proposals are largely confined to areas which are currently scrubland, loss of some areas of unimproved grassland will occur as a result of the proposals to install caravans, hardstanding access and parking. Small losses of this habitat can be feasibly compensated for via management to halt the encroachment of scrub and manage the retained grassland. Loss of larger areas (>20%) of the grassland in this area would require off site compensation e.g. creation of new areas of unimproved grassland. Creation of such a habitat would likely require years of careful management.
- 7.1.5 It is accepted that scrubland has its own value in providing food and cover for birds. Some areas of dense scrub should be retained to continue this function on site and maintain the mosaic of habitats present. It is this range of habitats which makes the site suitable for species at varying life stages. Scrubland is however frequently occurring locally and not considered to be a habitat of local significance. Preservation of the unimproved grassland is considered more beneficial.
- 7.1.6 Woodland within the site contains a good diversity of woody plant species. Ground flora species are however limited. Fencing of additional areas of woodland would prevent deer from grazing and increase ground flora post development. Woodland will be retained in the proposed scheme.

7.2 *Amphibians*

- 7.2.1 There are currently no suitable amphibian breeding ponds on or near the site. The BAP species Common Toad have however been recorded on site, in order to further minimise impacts on such amphibians crossing over the site, the following points should 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.

7.2.2 A new pond could be created on the site, which may need to be lined due to the permeable limestone bedrock. Standing water is a habitat which is only occasional in a limestone area and standing water in limestone areas can become ecologically highly significant.

7.3 Badger

7.3.1 Badgers have been recorded within 2km of the site. No setts will be disturbed by work but in order to minimise impacts on badgers passing over the site the following points should also 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.

7.4 Bats

7.4.1 In order to minimise impacts on foraging bats over the site, work at night should be restricted. Lighting within the site should also be minimised, light spill onto woodland and woodland edges should be avoided.

7.4.2 Structural diversity across the site should be maintained via the retention of a range of habitats. Bat activity was recorded as being at notably higher levels in the West of the site. This is likely due to the higher diversity of insects attracted to the

unimproved grassland as opposed to the semi-improved grassland in the East. Retention of this grassland is therefore considered necessary to maintain the functionality of the site for foraging bats.

- 7.4.3 There is currently no notable potential for bats to roost in the core development areas of the site. New roosting provision for crevice dwelling bats could be incorporated into the site via erection of bat boxes in trees. This would increase potential for bats to roost on site post development.

7.5 Birds

- 7.5.1 Nesting by birds within the development area is considered likely to occur. Birds may nest within woodland and scrub.
- 7.5.2 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.
- 7.5.3 Some areas of dense scrub should be retained along with woodland to maintain the potential for birds to nest on site.
- 7.5.4 Bird boxes should be erected around the site post development in suitable positions to provide compensation for the removal of scrub. Boxes should be erected on trees around the peripheries of the development areas.
- 7.5.5 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.

7.6 Brown Hares

- 7.6.1 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.
- 7.6.2 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.

7.7 Invertebrates

- 7.7.1 Contaminants should not be allowed to enter substrates during work. To effect this, 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.
- 7.7.2 Unimproved grassland should be retained on site. Disturbance levels via recreational use should also be restricted in this area via fencing. Yellow meadow ants were recorded on site, increased disturbance would not be favourable for this species which is beneficial to soil composition.

7.7.3 Buckthorn is present in scrub on site. This species should be retained on site as it provides a valuable larval food plant for the brimstone butterfly.

7.8 Red Squirrels

7.8.1 There is no requirement for specific mitigation for this species. However, as a precautionary measure, in the unlikely event that any signs of any Red Squirrel 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.

7.9 Reptiles

7.9.1 The requirement for mitigation in relation to these species at the site is highlighted in the full reptile report appended.

8 CONCLUSION

- 8.1.1 Ecological surveys, site appraisals and impact assessments were carried out with respect to land comprising species rich grassland, semi-natural woodland and scrubland to the North of Beetham holiday homes, Beetham, Cumbria. It is proposed caravans are installed on site. The survey was to inform potential future development/ expansion of the Beetham Holiday Homes Site.
- 8.1.2 Amphibians, badgers, bats, nesting birds, brown hares, hedgehogs and reptiles have been recorded 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.
- 8.1.3 Grassland in the West of the site is species rich and of high ecological value, this will as far as possible be retained in the scheme. Scrub removal required to facilitate the installation of caravans will likely slow the succession of the grassland and maintain this habitat on site. Loss of small areas of grassland can be compensated for via off site habitat enhancement and creation.
- 8.1.4 Lighting across the site will be minimised, bat boxes will be erected and a mosaic of vegetation structures will be retained on site to maintain the functionality of the site for foraging bats and increase potential for bats to roost on site. Woodland on and around the site will be retained.
- 8.1.5 New aquatic habitat suitable for use by amphibians could be created on site and introduce a valuable habitat which does not currently occur.
- 8.1.6 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.
- 8.1.7 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.

9 REFERENCES

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envirotech

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Environmental and Rural Chartered Surveyors

Reptile Surveys

Beetham Holiday Homes Beetham

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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.ieem.org.uk) and the Royal Institution of Chartered Surveyors (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

This report has been printed on recycled paper as part of our commitment to achieving both the ISO 9001 Quality Assurance and ISO 14001 Environmental Assurance standards. Envirotech have been awarded the Gold standard by the Cumbria Business Environmental Network for its Environmental management systems.

1.0 INTRODUCTION

1.1.1 Ecological surveys, site appraisals and impact assessments were carried out with respect to land at Beetham Holiday Homes, Beetham.

- To establish the presence or absence of reptiles.
- To assess the likely impact of the proposed installation of caravans on site on reptiles
- Mitigation proposals, as appropriate.

1.1.2 The survey was to inform potential future development/ expansion of the Beetham Holiday Homes Site.

1.1.3 A full ecological appraisal of the site was undertaken, including a full suite of presence/absence surveys for reptiles.

2.0 LEGISLATION AND PLANNING POLICY CONTEXT

2.1 *National Planning Policy and Legislation*

Legislation Relating to Reptiles

2.1.1 Common lizards, slow worms, grass snakes and adders are listed in schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are therefore protected from intentional killing or injury. The Countryside and Rights of Way Act 2000 (CRoW) introduces a new offence of 'reckless' disturbance which is punishable by a fine of up to £5000 per animal.

2.1.2 The construction stage of the development has the potential to have an impact on reptiles which could be injured during plant movement and earthworks.

2.1.3 As an area of habitat suitable for reptiles is to be lost as a result of the proposals, the post-development stage also has the potential to impact reptiles.

3.0 METHODOLOGY

3.1 *Background*

4.1.1 The general site layout and adjacent environs were appraised. A search of the Envirotech and CBDC dataset was undertaken to compile a list of protected species, which were selected as potentially being present at, or adjacent to, the site and could be affected either directly or indirectly by site operations.

4.2 Habitat Assessment

- 4.4.1 A walkover of the Site was carried on 2nd August 2016 to assess its potential to support reptiles. Areas considered being of potential value to reptiles such as mosaics of scrub and grassland were given particular attention.
- 4.4.2 The walkover survey encompassed areas adjacent to the site in order to determine the value of the site in the context of the local and environment, and assess its connectivity with the wider landscape.

4.5 Field Survey

- 4.5.1 During the walkover assessment, reptile refugia consisting of 50cm² tiles of a material with good thermal conductive properties were placed in areas of suitable reptile habitat within and immediately adjacent to the site. Reptiles readily adopt these tiles as a basking site and a shelter, making reptiles easier to find. 30 refugia were deployed around the potentially suitable habitats on site. Artificial refugia used for the duration of this survey comprised roofing felt.
- 4.5.2 In accordance with Gent and Gibson (1998), a 'bedding-in' period of 14 days was allocated prior to the commencement of the surveys. The number of artificial refuges exceeded the recommended minimum 5-10/ha recommended for survey effort by HGBI (1999).
- 4.5.3 Following the first survey, seven additional survey visits were undertaken to check for the presence of reptiles. These visits were all undertaken during the optimum survey season and in suitable weather conditions, e.g. sun and temperatures exceeding 9°C, following the guidelines as set out in the Gent and Gibson (1998). As the surveyors reside in proximity to the site, optimal days for the surveys were selected in that they were conducted on days following periods of wind or rain when reptiles would be less able to bask and ground temperatures would be reduced resulting in a high temperature differential between the refuges and surrounding areas.
- 4.5.4 Each survey visit consisted of slowly and quietly walking along a transect between the artificial refugia and the edge of the vegetated strips and checking each refuge for the presence of reptiles. All other natural open areas were also checked for the presence of reptiles and a general visual check of the site was undertaken to check for any signs of reptiles such as skin sloughs. All survey periods were considered optimal in respect of temperature, wind and sun for reptile basking.

4.6 Limitations

- 4.6.1 All areas of the development site could be adequately inspected during each survey visit.

5.0 Results

5.1 Data Search

5.1.1 There are no records for protected species occurring within the site boundaries on the datasets searched. There are however nine records for reptiles within 2km of the site. Species recorded are slow-worm (*Anguis fragilis*) and common lizard (*Zootoca vivipara*) (Figure 1).

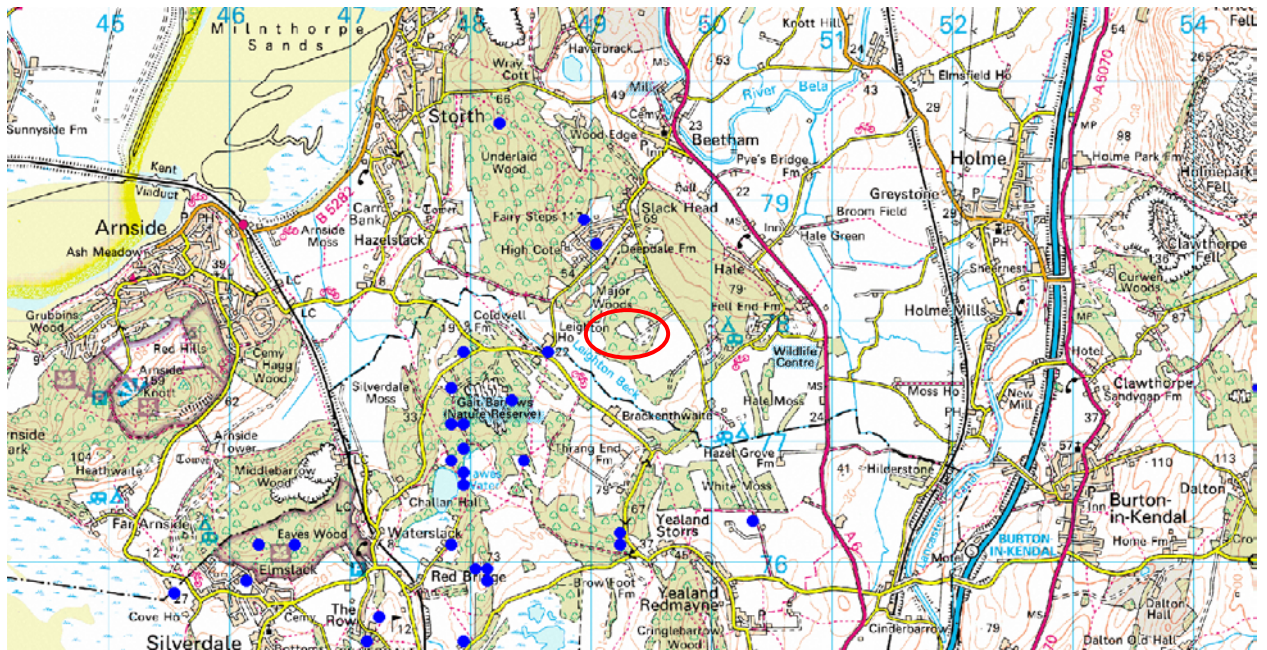


Figure 1 Reptiles records within 2km shown blue, site location circled red

5.2 Habitat Assessment

5.2.1 Habitats within the site were assessed by means of a walkover habitat assessment undertaken by Envirotech ecologists on 2nd august 2016. Full details of the species assemblages and habitat types found on and in the vicinity of the site can be found in the ecological appraisal to which this report is appended.

5.2.2 The General Habitat criteria for slow worm and lizards vary slightly.

Potential habitat for slow worm:

- Rough grassland (particularly with areas of rubble, hardstanding, log piles present) ;
- Thick ground vegetation - they bask less often than other British reptiles; and
- Habitats influenced by man, such as railway cuttings, allotments and gardens.
- Scrub

Potential habitat for common lizard:

- Open patches to bask in, especially piles of rubble and wood in sunny areas;
- Ground cover of Ivy (*Hedera helix*) is especially good for lizards to feed and avoid predators;
- Dense but short vegetation, open to the sun.
- Scrub/ vertical structure to vegetation such as gorse

Our classifications to cover all species have been made on the following basis.

Category	Habitat Type
Very Good Reptile Habitat	<p>Sunny sites or banks, South facing aspect Dry Low disturbance (Human and animal) Low/ No grazing Grass forming tussocks. Gorse or other shrubs forming scrub (for common lizard) Thick ground vegetation but interspersed with basking sites Very sheltered</p> <p>Typical sites may include derelict allotments or former quarries</p>
Good Reptile Habitat	<p>Partially sunny or banks, generally southern aspect Occasional open areas for basking Occasional disturbance (human and animal) Locally dense ground vegetation Partially drained, occasionally damp Generally sheltered</p> <p>Typical sites may include coastal cliffs, heathland or down</p>
Poor Reptile Habitat	<p>East or West aspect Usually shaded Frequent disturbance Occasional dense areas of vegetation, fragmented, many open areas of ground between Often damp, likely to hold standing water Exposed</p> <p>Typical sites may include field edges, parkland, footpaths</p>
Very Poor Reptile Habitat	<p>North aspect Shaded Very frequent disturbance No dense areas of vegetation Usually damp, likely to hold standing water Very Exposed</p>

	Typical sites may include car parks or hard standing
Table 1 <i>Habitat classifications</i>	

5.2.3 Predominantly good reptile habitat occurs within the development site; the vegetation structure is varied providing areas of open grassland, tussocky vegetation, with a denser, scrubby area along the boundaries. Good reptile habitat also occurs adjacent to, but outside the development site.

5.2.4 Results of the field surveys using artificial refugia are shown in Table 2

Visit	1	2	3	4	5	6	7	8
Date	02/08/2016	15/08/2016	18/08/2016	23/08/2016	31/08/2016	02/08/16	7/09/2016	14/09/2016
Average ground temperature end of survey	12°C	18°C	30°C	16°C	15°C	20°C	21°C	21°C
Average refugia temperature end of survey	N/A	21°C	35°C	17°C	31°C	23°C	26°C	26°C
Time of day visit made	10:30-11:00 Evening	10:30-11:00 Morning	Morning	Morning	Morning	Late afternoon	Morning	12:00-13:00 Morning
Weather	Overcast	Full sun	Sunny	Full sun after heavy rain	Sunny after showers	Full sun	Broken cloud, sunny spells	Sunny
Wind	Light Breeze	Light Breeze	Calm	Light Breeze	Light Breeze	Calm - light breeze	Light breeze	Light breeze
Common Lizard	0	0	0	0	0	0	0	0
Slow Worm	0	0	0	0	0	0	0	0
Grass Snake	0	0	0	0	0	0	0	0
Adder	0	0	0	0	0	0	0	0
Surveyor	MT/EW	EW	HG	CEW	AG	AG, EW	EW	AG, EW

Table 2- Results of refugia surveys

Surveyors

Mr Andrew Gardner BSc (Hons), MSc, MCIEEM, MRICS, CEnv, Dip NDEA (AG)

Mr Chris Arthur BSc (Hons), MSc, Grad CIEEM (CA)

Mr Matthew Thomas BSc (Hons), Grad CIEEM (MT)

Mrs Hannah Gardner BSc (Hons), MSc, MRICS, CEnv

Miss Emma Wainwright BSc (Hons), Grad CIEEM (EW)

6.0 MITIGATION PROPOSALS

6.1 *Background*

- 6.1.1 No reptiles were recorded during the course of reptile surveys undertaken. It is therefore not considered that the site is of significance to these species despite them being known to occur locally.
- 6.1.2 A precautionary approach should however be followed so as to ensure reasonable avoidance measures are taken to avoid the killing or injury of these species.

6.2 *Mitigation/Compensation*

- 6.2.1 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.
- 6.2.2 Some areas of dense scrub and woodland on the edge of the development site should be retained such that it is in proximity to open areas grassland which will also be suitable for basking.
- 6.2.3 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 reptiles are not trapped during work.
- 6.2.4 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.
- 6.2.5 As the site was not recorded being used by reptiles new habitat creation, fencing of the site or site monitoring is considered necessary.

7.0 CONCLUSION

- 7.1.1 This report provides recommendations for a reptile mitigation/compensation strategy for the proposed installation of static caravans at Beetham Holiday Homes.
- 7.1.2 Full reptile surveys were undertaken at the site. These surveys did not record use of the site by any reptile species. It is therefore not considered that the site is of high significance to these species.
- 7.1.3 Precautionary mitigation will be followed in relation to construction activities to ensure reasonable avoidance of the killing or injuring of these species is taken.
- 7.1.4 Strict adherence to the methodology outlined in this report will be an enforceable component of the aforementioned licence. Following this strategy will ensure that there is no adverse effect on the local reptile populations.
- 7.1.5 I certify this report has been compiled in accordance with the code of professional conduct for the 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.

Signed



Andrew Gardner BSc (Hons), MSc, MIEEM, MRICS, CEnv, Dip NDEA
Director Envirotech NW Ltd
Friday, 23 December 2016

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