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Ecological Consultants
Environmental and Rural Chartered Surveyors

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ECOLOGICAL APPRAISAL

Land Adjacent to "The Eagle"

Barrow

January 2013

NB. Information on legally protected, rare or vulnerable species may appear in ecological reports. In such cases it is recommended that appropriate caution be used when circulating copies.

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Tel: 015395 61894
Mobile: 07812 081320
Email: info@envtech.co.uk
Web: www.envtech.co.uk
Envirotech NW Ltd

Directors: Stone Lea, Sedgwick, Kendal, Cumbria, LA8 0JP
A. Gardner BSc (Hons), MSc, CEnv, MIEEM, 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 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

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RESULTS SUMMARY AND ACTIONS REQUIRED

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Results

1. The site supports habitat of limited value to notable species.
2. There are no past records of protected or notable species on the site.
3. Nesting birds, bats and amphibians may be affected by the proposal.
4. The retention of mature trees and hedgerows, where possible, in the development area is encouraged.

Actions Required

5. As many mature trees as possible should be retained on site.
6. If the Leylandii hedgerows are not to be retained, they must be replaced by a native mixed species hedgerow which, when mature, will provide both shelter/nesting habitat and a food source for birds. In addition, it would provide some foraging potential for bats.
7. Soft landscaping and the use of native plant species/ wildflowers in the landscape plan may in the medium to long term significantly improve the sites potential for use by protected or notable species.
8. Remove by hand any brash piles on the site to minimise the potential harm to reptile and amphibian species which may utilise them as refuges.

1.0 Extended Phase 1 Survey

1.1 Introduction

1.1.1 The Phase 1 survey was undertaken by Miss Kate Statham BSc (Hons), AIEEM in January 2013. The phase 1 habitat survey methodology (NCC, 1990) is a standard technique for recording and mapping habitats. The survey involved walking the whole site, mapping and describing different habitats (for example: woodland, grassland, scrub).

1.2 Timing and Constraints

1.2.1 The Phase 1 survey was carried out on the 7th January 2013. The weather was dry and bright throughout. The survey timing was mid-winter.

2.0 Phase 1 Survey Results

2.1 Habitat Results

2.1.1 The site is an area of plantation mixed woodland surrounded by a Leylandii (*Leylandii* x *Cupressocyparis leylandii*) hedgerow on the Eastern and Western sides. Small patches of improved grassland occur on the Western and Southern site boundaries, close to the adjacent improved pasture field, with a tarmac driveway bisecting the site.

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

2.1.2 The habitats encountered on and adjacent to the site were (in no particular order):

- Mixed Plantation Woodland
- Improved grassland
- Intact hedgerow
- Hardstanding
- Scattered scrub

2.2 Phase 1 Target Notes

Target Note	Description
BTN 1	The dominant habitat type is mixed plantation woodland. Canopy species include Sycamore (<i>Acer pseudoplatanus</i>), Silver Birch (<i>Betula pendula</i>), Horse Chestnut (<i>Aesculus hippocastanum</i>), Beech (<i>Fagus sylvatica</i>), Ash (<i>Fraxinus excelsior</i>), Norway Spruce (<i>Picea abies</i>) along with several species of pine (<i>Pinus</i> spp.). Understory was very sparse and not typical of mature woodland.
BTN 2	Occasional patches of Common Nettle (<i>Urtica dioica</i>) were noted within the understory, generally adjacent to the Western boundary. This may be indicative of nutrient enrichment from the adjacent improved pasture field.
BTN3	To the North of the site, there is a distinct increase in the number of tree saplings within the understory. These are predominantly self-seeding species including Ash and Sycamore.
BTN4	There are very occasional patches of Male Fern (<i>Dryopteris</i> sp.) with small amounts of Bramble (<i>Rubus fruticosus</i>) towards the North of the site. These patches are likely

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	to expand during the spring and summer months.
FTN1	Close to the North Western corner of the site, there are several small brash piles and a pile of loose earth. These are likely to be utilised by small mammal, e.g. Hedgehog (<i>Erinaceus europaeus</i>) as well as amphibians including Common Toad (<i>Bufo bufo</i>).
BTN5	Along the Southern boundary and South Western corner of the site, there are small areas of improved grassland. Species include Yorkshire Fog (<i>Holcus lanatus</i>), Cocksfoot (<i>Dactylus glomerata</i>), Broadleaved Dock (<i>Rumex obtusifolius</i>), Creeping Buttercup (<i>Ranunculus repens</i>) and Cow Parsley (<i>Anthriscus sylvestris</i>). Vegetation is taller along the fence line on the site boundary.
BTN6	On the grassland in the South Western corner of the site, there are several semi-mature Silver Birch trees.
BTN7	A tarmac driveway leads from the main road, which runs to the East of the site, across the South of the site, then North, bisecting the mixed woodland. The tarmac is well maintained, with no signs of vegetation encroachment. Further hardstanding occurs to the East of the site at an adjacent public house.
BTN8	A tall Leylandii (<i>Leylandii x Cupressocyparis leylandii</i>) hedgerow runs along the Eastern, Western and part of the Southern site boundary, presumably acting as a visual screen.
BTN9	Several Hawthorn (<i>Crataegus monogyna</i>) trees are present along the Western half of the Northern site boundary.
FTN2	The Leylandii hedgerows are likely to provide good nesting habitat for small passerine birds, e.g. Great Tit (<i>Parus major</i>), though it's prevalence in gardens and urban areas is thought to have contributed to decline in species such as House Sparrow (<i>Passer domesticus</i>). In addition, the Hawthorns will provide a vital food source for birds in the local area whilst it is in berry in the autumn.
BTN10	Several horticultural species are planted adjacent to the driveway at entrance to the site, including low lying coniferous species
BTN11	To the West of the site, there are several improved pasture fields. The closest was stocked with sheep at the time of survey.
BTN12	To the East of the site is an area of amenity grassland associated with the adjacent public house.

Photographs can be seen in Appendix 1.

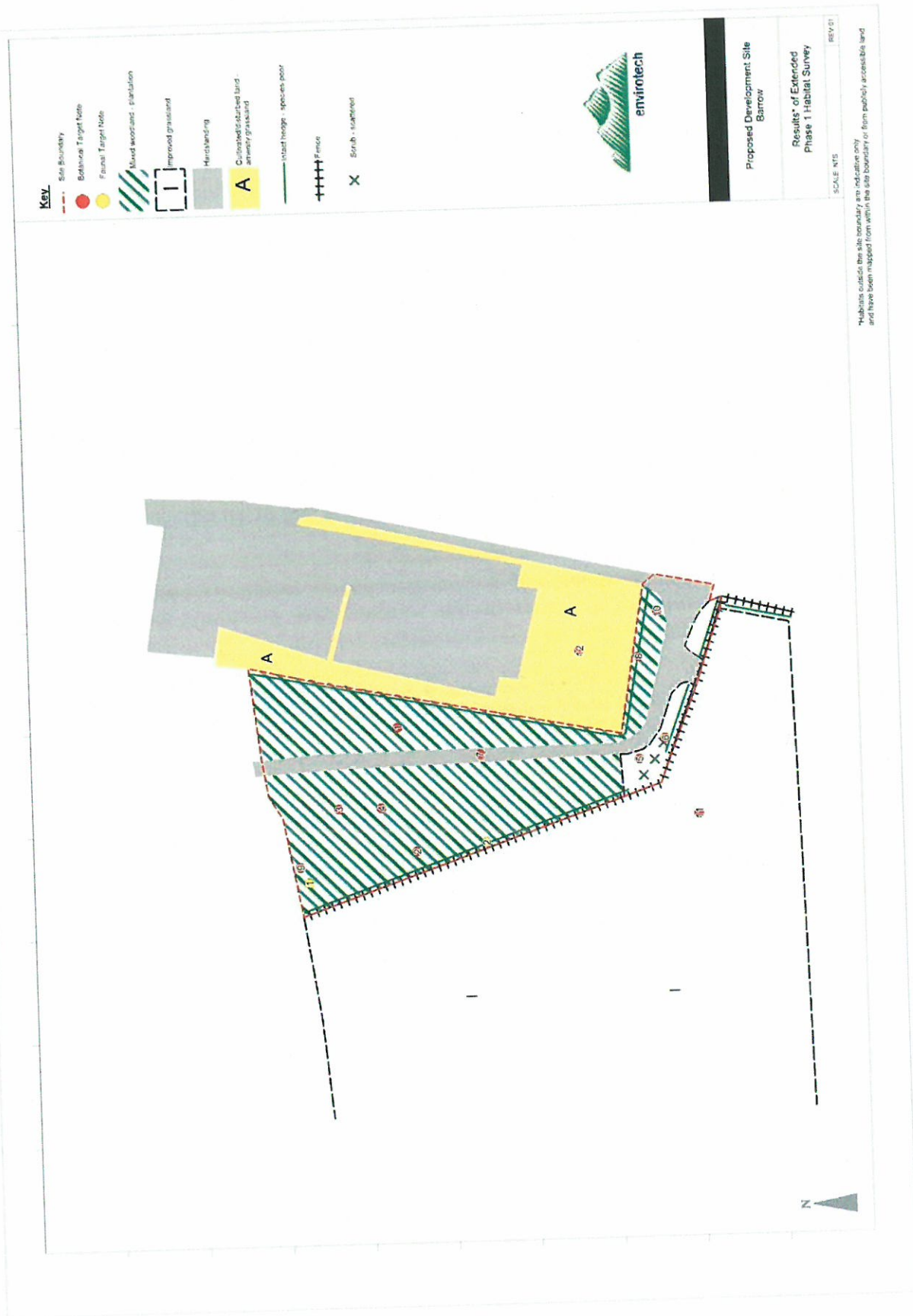


Figure 1. Extended Phase 1 Habitat Survey map

3.0 SUPPORTING INFORMATION

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3.1 Scope and objectives

This report was commissioned by Gary Hoerty Associates in respect of the proposed construction of a new residential dwelling in the mature garden of an existing house.

The objectives of this survey are:

1. To carry out an ecological appraisal of the site to identify any habitats, species or features of nature conservation significance.
2. To provide a written report of the results, making any appropriate recommendations to ensure compliance with wildlife law and recognised best practice.

3.2 General site description and methods

The site, located at Ordnance Survey Grid Reference SD 734 375, is comprised primarily of mixed plantation woodland with small areas of improved grassland bisected by a tarmacked driveway. A tall *Leylandii* hedgerow runs along the Western, Eastern and parts of the Southern site boundary.

A phase 1 habitat map is provided earlier in this report, photographs are included in the Appendix.

3.3 Methodology

An initial consultation with the site agents was made on the 10th December 2013 following which the general site layout and adjacent environs were appraised. A search of the ecological records held by Envirotech and Lancashire Environment Record Network was undertaken.

No records of protected or notable species occur at the site, though several records occur within the local area (see Figure 2). A roost for Common Pipistrelle (*Pipistrellus pipistrellus*) roost is located within 2km of the site, as well as numerous records for Common Frog (*Rana temporaria*) and Common Toad (*Bufo bufo*). The results can be seen in Appendix 2.

The level of survey effort used for each species was derived from our assessment of the likely presence and susceptibility of each species to disturbance from the proposed development as well as its local abundance and level of protection/importance.

3.3.1 Bats

The survey was carried out in full accordance with the recommendations in NCC (1987), Mitchell-Jones (2004) and BCT (2007 and 2012). This included an assessment of all trees at the site for their potential to support bats either for roosting or foraging. An assessment of the habitat in the local area was also undertaken.

3.3.2 Badger

The survey method was a scaled down version of the standard badger survey methodology as described in Harris et al (1989). In practice this comprised a generalized search of the whole site where suitable habitat was found, to a distance of 30m from the site boundaries, where this was possible, for feeding signs, habitual runs and footprints, hairs, droppings and latrines, scratching posts and actual setts.

3.3.3 Birds

All nesting birds, other than pest species covered by specific exemptions where they are causing damage to livestock or crops, are protected from disturbance when actively nesting or rearing dependant young. A search for past and current nest sites and an assessment of the sites potential to support nesting birds would reveal the level of past use of the site and likely impact of the development on nesting/ foraging opportunities for birds. The trees and hedges were all inspected as part of the other surveys which were undertaken.

3.3.4 Invertebrates

The survey for these species was based on assessing the habitat type and suitability of the site. Invertebrates were also noted during the field survey, all key habitats were inspected.

It is our opinion that the above methodology was sufficient to make a risk assessment of site works and determine the likely effect on these species. As such we consider the above methodology constitutes reasonable effort in this case.

3.3.5 Plants

The vegetation composition of the site was assessed with key plant and tree species being identified.

3.3.6 Reptiles/ Amphibians

A 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 and Amphibians for foraging or breeding.

3.4 Limitations

None significant. Full co-operation was received from the site owner.

4.0 RESULTS

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4.1 Bats

Habitat at and adjacent to the site was assessed by a licensed bat surveyor for its foraging potential. The habitat was classified as high, medium and low quality.

The mixed woodland within the site would provide moderate foraging potential for bats, as would the *Leylandii* hedge surrounding the site. Gardens to the North and North East of the site also provide moderate quality foraging habitat.

Surrounding pasture fields have low structural diversity and therefore offer low foraging quality for bat species. However, many of the field boundary hedgerows provide moderate quality foraging habitat on a linear level, whilst also providing corridors linking larger areas of more suitable foraging and roosting habitat in the wider landscape.

Clusters of mature deciduous trees to the West of the site would provide high quality foraging with the structural diversity provided by the mature trees, understory and woodland edge.

The site is subject to some disturbance as the tarmac driveway is utilised as an access for a residential dwelling to the North of the site. The North of the site may also be subjected to some light spill from this property.

Key commuting routes into and around the sites would include field boundary hedgerows, hedgerows running along the main road to the East as well as the gardens to the North.

Based on the habitat assessment the site was considered to offer moderate foraging potential for bats, with foraging being centred around the mature trees and hedgerows in the area.

The next stage of the assessment was to identify the species of bat which may occur at the site and utilise it.

The bulk of the site was judged to be sufficiently closed to be utilised by “closed” landscape bats such as Natterer’s (*Myotis nattereri*) and Brown Long-Eared (*Plecotus auritus*) bats.

There is no standing water on site and no major waterbodies in close proximity to the site, therefore the site would be largely unfavourable for those species which show a distinct preference for “water” landscapes, such as Daubenton’s (*Myotis daubentoni*) and Soprano Pipistrelle (*Pipistrellus pygmaeus*). However, Soprano Pipistrelle are not limited to these habitats, and also utilise other habitat types.

There may be a moderate to high level of use by “open” and “edge” landscape bats such as Common Pipistrelle (*Pipistrellus pipistrellus*), Whiskered (*Myotis mystacinus*), Brandt’s (*Myotis brandtii*) and Noctule (*Nyctalus noctula*). These species are most likely to utilise boundary features, such as the hedgerows, and scattered trees, as well as the mixed woodland on site.

There are no buildings on site.

Trees were assessed in accordance with BCT (2007 and 2012). None of the trees on site were judged to be suitable for roosting bats and were therefore classified as Category 3.

On the basis of this result, the proposed residential dwelling is considered potentially likely to have an effect on the foraging habitat of bats in the local area. However, there is judged likely to be no effect on any bat roosts and the impact on foraging will be low to negligible due to habitat fragmentation in the local area not providing the capacity for significant populations of bats to occur at the site.



Figure 2. Map of Habitat Suitability for Bat Species

4.2 Badger

A detailed inspection of all suitable habitat at the site and to a distance of at least 30m from the site boundaries, where this was possible.

A search for snuffle holes (badger feeding signs) was made across the all areas of the site which could be accessed. No indication of badger feeding was found.

No signs of entrance and egress of badgers into the site, through hedgerows, scrub or otherwise, were found.

There will be a requirement to maintain the porosity of the site to the passage of badgers with the careful utilisation of fencing and vegetated corridors.

4.3 Birds

A risk assessment of the site in respect of its future potential for and value to nesting birds could be adequately made.

The Leylandii hedges provide good nesting habitat for a number of smaller passerine birds. Where possible, these hedges should be retained. Where this is not possible, in keeping with mitigation for bats, a native mixed species hedge should be planted. This will not only provide shelter and nesting potential once mature, but a number of species will also produce berries, providing an additional food source. Hawthorn trees to the North of the site should also be retained for this reason.

4.5 Invertebrates

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 make observations for invertebrates themselves.

Given the abundance of the habitats contained within the site in the wider local area, it is not thought that this site is of any local significance for invertebrates.

4.6 Plants

Details of the plant species found on site are included in the target notes. Species recorded are all commonly occurring species and undoubtedly occur elsewhere in similar habitats in the local area.

The landscaping scheme should utilise native or wildlife friendly species. Mature trees on the site should be retained and reinforced with new planting where possible.

No species of plant listed in Schedule 9 of the Wildlife & Countryside Act (1981, as amended 2010) for invasive plants were located on site.

4.7 Reptiles and Amphibians

The site has limited value to reptiles and amphibians. Brash and soil piles to the North of the site may provide refugia and potentially hibernacula for species such as Common Frog (*Rana temporaria*) and Common Toad (*Bufo bufo*), both of which are Lancashire Biodiversity Action Plan species.

5.0 Mitigation

5.1 Bats

The following table details each part of the site and works required to protect bats during the construction phase.

AREA OF SITE	POTENTIAL FOR USE BY BATS	RISK TO BATS FROM PROPOSED WORK	RECOMMENDATIONS
Open ground	No suitable roost sites. Low potential for foraging over open ground	Low risk	If bats are seen stop work and seek further advice
Semi-mature trees over 10cm BDH	No suitable fissures or cracks for roosting. Low potential for use	Low risk	Re-inspect any trees prior to felling. Be observant for bats during any felling operations in this area. If bats are seen stop work and seek further advice
Mature Trees	No fissures or cracks for roosting. Low potential for use	Low Risk	Re-inspect any trees prior to felling. Be observant for bats during any felling operations in this area. If bats are seen stop work and seek further advice

Commuting and foraging routes

The site currently provides moderate quality foraging habitat. Mitigation will be required to compensate for any loss of structural diversity and medium quality foraging areas within the core development area.

Mitigation to retain as many trees as possible within the site and on its boundaries is encouraged. Where this is not possible, it is strongly encouraged that replacement trees are planted in more suitable locations around the proposed development. If Leylandii hedgerows are to be lost, they should be replaced with a lower growing, commercially available, native species hedgerow mix.

Mitigation in respect of the incorporation or erection of bat roosting features into new buildings or on trees around the site would also be beneficial. The installation of at least 2 bat boxes is recommended.

5.2 Badgers

No evidence of badgers was found during the survey. However, maintaining the porosity of the site is highly recommended to allow any subsequent use of the site by badgers.

5.3 Nesting Birds

Leylandii hedges surrounding the site provide good nesting habitat for birds. Where possible, these hedges should be retained. Where this is not possible, in keeping with mitigation for bats, a native mixed species hedge should be planted. This will not only provide shelter and nesting potential once mature, but a number of species will also produce berries, providing an additional food source. Hawthorn trees to the North of the site should also be retained for this reason.

Should hedges or other vegetation need to be removed from the site, it should ideally be removed outside of the bird breeding season (i.e. not between end-February and mid-August inclusive) wherever

possible. As nesting birds are relatively easy to detect, vegetation to be cleared within this time period should be searched for nesting birds prior to clearance by a suitably qualified individual. If a nest is found, the feature containing the nest and its immediate surroundings will be left undisturbed until nesting is complete and any young have fledged.

Mitigation is to be delivered through the incorporation of bird nesting boxes in trees and further hedgerow planting within the site. There should therefore be no medium or long term impacts on nesting birds. New tree and shrub planting would provide for and may enhance the existing value of the site.

5.4 Landscaping

The use of native plant species in the landscaping plan is encouraged. We would recommend the retention of as many mature trees as possible.

5.5 Reptiles & Amphibians

The main development area comprises habitat of limited value to reptile and amphibians, though brash and soil piles to the North may provide refugia/hibernacula for amphibian species. If these features are to be removed, it should be undertaken in the spring/summer period once amphibians are no longer in hibernation. Brash piles should be dismantled by hand.

Any reptiles/amphibians found will be moved to the edge of the site outside the working area. Vegetative materials which are removed should be transported directly to a skip or other suitable receptacle into which reptiles/amphibians cannot take access or outside the working area to a location where they can decay naturally and provide enhanced habitat for reptiles and amphibians. Any such piles which are created should not be later moved or burnt.

Signed



Andrew Gardner BSc (Hons), MSc, MIEEM, MRICS, CEnv, Dip NDEA

Director Envirotech NW Ltd

Thursday, 31 January 2013

Appendix 1. Photographs



Plate 1. View of woodland (BTN1) bisected by hardstanding driveway (BTN7)



Plate 2. Leylandii hedge (BTN8) on Southern site boundary



Plate 3. Improved grassland (BTN5) on Eastern site boundary

Appendix 1. Photographs

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Plate 4. Area of Common Nettle growth within woodland

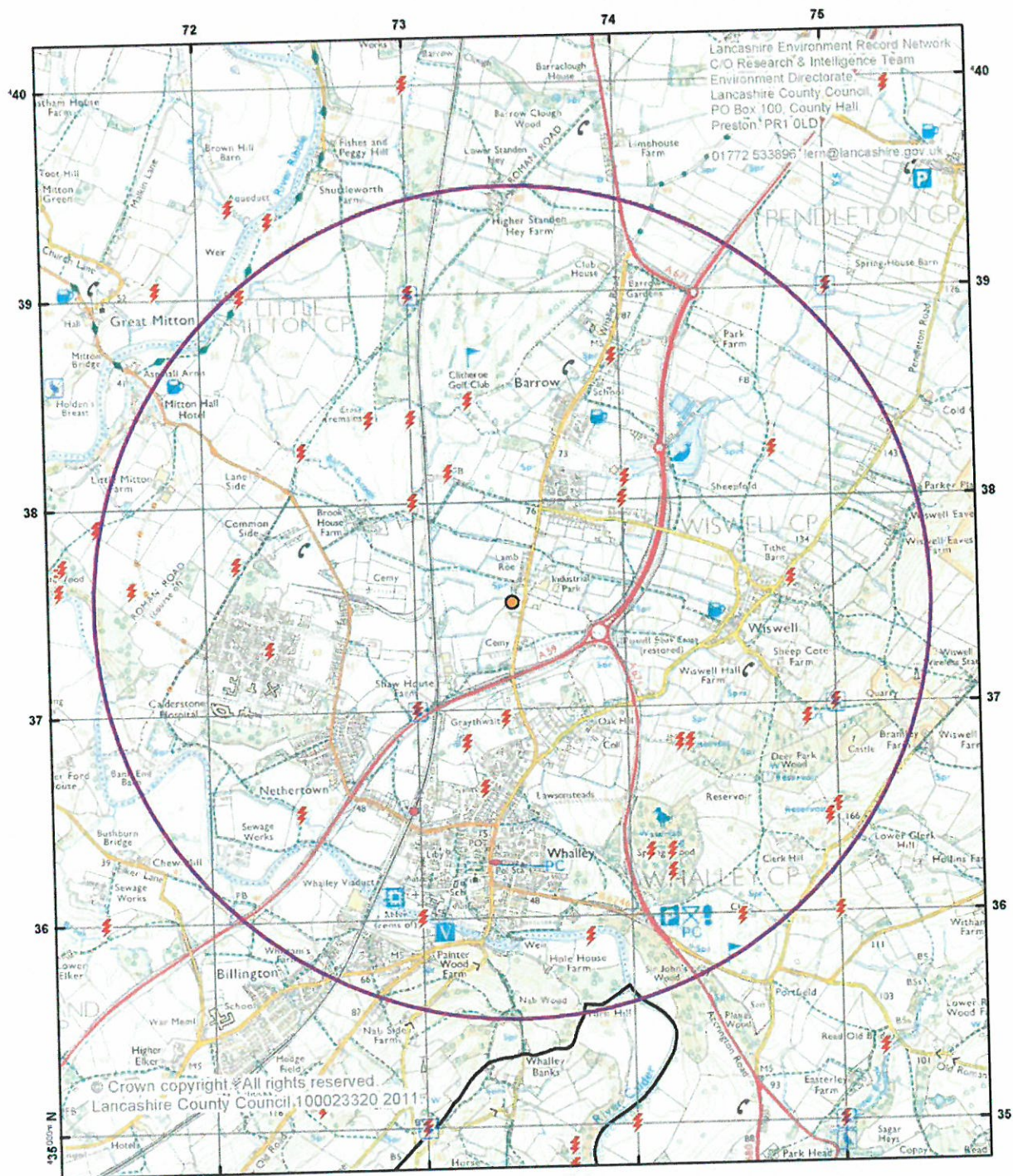


Plate 5. Soil & brash piles to North of site



Plate 6. Self-seeded saplings towards North of site

Appendix 2. Records Search Results



Legend

- The Eagle 2km Buffer
- The Eagle
- Breeding Birds_R6_April_2012
- ⚡ Key Species Records



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Taxon Latin Name	Taxon Common Name	Sample Year	Sample 1 km Square	Sample Spatial Reference
Platanthera bifolia	Lesser Butterfly-Orchid	1899.00		SD73I
Bufo bufo	Common Toad	1997.00	SD7436	SD74963645
Bufo bufo	Common Toad	1997.00	SD7137	SD71643760
Bufo bufo	Common Toad	1997.00	SD7436	SD74253682
Bufo bufo	Common Toad	1997.00	SD7436	SD74253682
Bufo bufo	Common Toad	1997.00	SD7435	SD74533598
Triturus cristatus	Great Crested Newt	1997.00	SD7436	SD74963645
Triturus cristatus	Great Crested Newt	2011.00	SD7336	SD7323536835
Triturus cristatus	Great Crested Newt	1985.00	SD7436	SD74303682
Triturus cristatus	Great Crested Newt	2011.00	SD7336	SD7331436618
Triturus cristatus	Great Crested Newt	2011.00	SD7336	SD7331436618
Alauda arvensis	Skylark	1999.00		SD73I
Alauda arvensis	Skylark	1998.00		SD73N
Alauda arvensis	Skylark	1999.00		SD73J
Cuculus canorus	Cuckoo	1999.00		SD73I
Emberiza schoeniclus	Reed Bunting	2008.00	SD7437	SD748376
Emberiza schoeniclus	Reed Bunting	1999.00		SD73I
Muscicapa striata	Spotted Flycatcher	1999.00		SD73I
Numenius arquata	Curlew	1988.00	SD7438	SD7472238222
Numenius arquata	Curlew	1988.00	SD7436	SD7486436925
Numenius arquata	Curlew	1997.00	SD7137	SD7164837602
Numenius arquata	Curlew	1998.00		SD73N
Numenius arquata	Curlew	1999.00		SD73J
Numenius arquata	Curlew	1999.00		SD73P
Passer domesticus	House Sparrow	1999.00		SD73I
Passer domesticus	House Sparrow	1999.00		SD73J
Passer domesticus	House Sparrow	2012.00	SD7336	SD7336
Passer domesticus	House Sparrow	1999.00		SD73P
Passer domesticus	House Sparrow	1998.00		SD73N
Perdix perdix	Grey Partridge	1998.00		SD73N

Vanellus vanellus	Lapwing	1999.00		SD73J
Vanellus vanellus	Lapwing	1988.00	SD7436	SD7486436925
Vanellus vanellus	Lapwing	1999.00		SD73I
Vanellus vanellus	Lapwing	1999.00		SD73P
Arvicola terrestris	Water Vole	1977.00	SD7438	SD7438
Arvicola terrestris	Water Vole	1977.00	SD7438	SD7438
Arvicola terrestris	Water Vole	1977.00	SD7438	SD7438
Lepus europaeus	Brown Hare	2001.00	SD7536	SD 750 365
Lepus europaeus	Brown Hare	1977.00	SD7438	SD7438
Pipistrellus pipistrellus 55kHz	55 Khz Pipistrelle	2010.00	SD7237	SD723373
Salmo salar	Atlantic Salmon	2011.00	SD7239	SD7215439426
Triturus cristatus	Great Crested Newt	2009.00	SD7336	SD7342336951
Carduelis cabaret	Lesser Redpoll	1999.00		SD73P
Anguilla anguilla	Eel	2011.00	SD7238	SD7219838996
Anguilla anguilla	Eel	2011.00	SD7438	SD7401638098
Anguilla anguilla	Eel	2011.00	SD7236	SD7243436510
Centaurea cyanus	Cornflower	2009.00	SD7438	SD7438
Diarsia rubi	Small Square-spot	2008.00	SD7436	SD742362
Ecliptopera silaceata	Small Phoenix	2008.00	SD7436	SD742362
Tyria jacobaeae	Cinnabar	2010.00	SD7338	SD7338
Hydraecia petasitis	Butterbur	1949.00	SD7539	SD7539
Sphagnum	Sphagnum	1995.00	SD7137	SD71503789
Sphagnum	Sphagnum	1988.00	SD7137	SD7148737902
Cervidae	Indet. Deer	2010.00	SD7336	SD734369
Hyacinthoides non-scripta	Bluebell	2001.00	SD7436	SD742363
Hyacinthoides non-scripta	Bluebell	2001.00	SD7436	SD741363
Hyacinthoides non-scripta	Bluebell	2001.00	SD7436	SD741363
Hyacinthoides non-scripta	Bluebell	1996.00	SD7237	SD72203762
Hyacinthoides non-scripta	Bluebell	1994.00	SD7237	SD722376
Hyacinthoides non-scripta	Bluebell	2004.00	SD7138	SD716385
Hyacinthoides non-scripta	Bluebell	1999.00	SD7535	SD751359

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Hyacinthoides non-scripta	Bluebell	1988.00	SD7435	SD7442535539
Hyacinthoides non-scripta	Bluebell	2011.00	SD7237	SD7237
Hyacinthoides non-scripta	Bluebell	2005.00	SD7337	SD73083797
Hyacinthoides non-scripta	Bluebell	2001.00	SD7436	SD741363
Hyacinthoides non-scripta	Bluebell	1988.00	SD7336	SD7394336262
Hyacinthoides non-scripta	Bluebell	1994.00	SD7535	SD753355
Hyacinthoides non-scripta	Bluebell	2001.00	SD7436	SD741363
Hyacinthoides non-scripta	Bluebell	2004.00	SD7238	SD7238
Hyacinthoides non-scripta	Bluebell	1995.00		SD73P
Hyacinthoides non-scripta	Bluebell	2009.00	SD7236	SD72243675
Hyacinthoides non-scripta	Bluebell	1988.00	SD7535	SD752359
Hyacinthoides non-scripta	Bluebell	2001.00	SD7436	SD741363
Hyacinthoides non-scripta	Bluebell	1995.00		SD73I
Hyacinthoides non-scripta	Bluebell	1995.00		SD73N
Narcissus pseudonarcissus	Bluebell	1996.00	SD7436	SD741363
Narcissus pseudonarcissus	Daffodil	2001.00	SD7436	SD742363
Narcissus pseudonarcissus	Daffodil	1997.00		SD73P
Narcissus pseudonarcissus	Daffodil	1997.00		SD73N
Narcissus pseudonarcissus	Daffodil	2001.00	SD7436	SD741363
Orchis morio	Green-Winged Orchid	1891.00	SD7336	SD7336
Orchis morio	Green-Winged Orchid	1891.00	SD7336	SD7336
Primula farinosa	Bird's-Eye Primrose	1900.00		SD73J
Primula farinosa	Bird's-Eye Primrose	1900.00		SD73J
Primula farinosa	Bird's-Eye Primrose	1900.00		SD73P
Primula farinosa	Bird's-Eye Primrose	1865.00		SD73J
Primula farinosa	Bird's-Eye Primrose	1929.00		SD73J
Trollius europaeus	Globe-Flower	1899.00		SD73I
Trollius europaeus	Globe-Flower	1899.00		SD73I
Trollius europaeus	Globe-Flower	1959.00		SD73I
Rana temporaria	Common Frog	2001.00	SD7436	SD742363
Rana temporaria	Common Frog	1997.00	SD7237	SD72153771

Rana temporaria	Common Frog	1997.00	SD7536	SD75193631
Rana temporaria	Common Frog	1997.00	SD7436	SD74253682
Rana temporaria	Common Frog	1997.00	SD7137	SD71803736
Rana temporaria	Common Frog	1988.00	SD7338	SD7327438483
Rana temporaria	Common Frog	2001.00	SD7436	SD741363
Rana temporaria	Common Frog	1997.00	SD7435	SD74533598
Rana temporaria	Common Frog	1997.00	SD7436	SD74243633
Rana temporaria	Common Frog	2011.00	SD7336	SD7331436618
Rana temporaria	Common Frog	2011.00	SD7336	SD7331436618
Actitis hypoleucos	Common Sandpiper	1999.00		SD73J
Anthus pratensis	Meadow Pipit	1999.00		SD73J
Anthus pratensis	Meadow Pipit	1999.00		SD73I
Anthus pratensis	Meadow Pipit	1999.00		SD73P
Anthus pratensis	Meadow Pipit	1998.00		SD73N
Apus apus	Swift	1999.00		SD73J
Apus apus	Swift	1998.00		SD73N
Ardea cinerea	Grey Heron	2010.00	SD7239	SD7239
Ardea cinerea	Grey Heron	2009.00	SD7136	SD7152836620
Carduelis cannabina	Linnet	1999.00		SD73I
Carduelis cannabina	Linnet	1999.00		SD73P
Carduelis cannabina	Linnet	1998.00		SD73N
Delichon urbica	House Martin	1999.00		SD73I
Delichon urbica	House Martin	1999.00		SD73P
Delichon urbica	House Martin	1998.00		SD73N
Falco tinnunculus	Kestrel	1999.00		SD73I
Falco tinnunculus	Kestrel	1999.00		SD73P
Falco tinnunculus	Kestrel	1998.00		SD73N
Gallinago gallinago	Snipe	1999.00		SD73I
Haematopus ostralegus	Oystercatcher	1997.00	SD7137	SD7164837602
Haematopus ostralegus	Oystercatcher	1997.00	SD7436	SD7425036820
Haematopus ostralegus	Oystercatcher	1997.00	SD7237	SD7215037717

Haematopus ostralegus	Oystercatcher	1997.00	SD7536	SD7519036310
Haematopus ostralegus	Oystercatcher	1997.00	SD7436	SD7424736328
Haematopus ostralegus	Oystercatcher	1997.00	SD7436	SD7496036460
Haematopus ostralegus	Oystercatcher	1997.00	SD7137	SD7180037370
Haematopus ostralegus	Oystercatcher	1997.00	SD7137	SD7190037470
Haematopus ostralegus	Oystercatcher	1999.00		SD73J
Hirundo rustica	Swallow	1999.00		SD73I
Hirundo rustica	Swallow	1999.00		SD73P
Hirundo rustica	Swallow	1999.00		SD73J
Hirundo rustica	Swallow	1998.00		SD73N
Larus ridibundus	Black-Headed Gull	2009.00	SD7136	SD7152836620
Parus palustris	Marsh Tit	1999.00		SD73I
Phylloscopus trochilus	Willow Warbler	1999.00		SD73J
Phylloscopus trochilus	Willow Warbler	1999.00		SD73I
Phylloscopus trochilus	Willow Warbler	1999.00		SD73I
Phylloscopus trochilus	Willow Warbler	1999.00		SD73P
Phylloscopus trochilus	Willow Warbler	1998.00		SD73N
Prunella modularis	Dunnock	1999.00		SD73I
Prunella modularis	Dunnock	1996.00	SD7436	SD741363
Prunella modularis	Dunnock	1999.00		SD73P
Prunella modularis	Dunnock	1999.00		SD73J
Prunella modularis	Dunnock	1998.00		SD73N
Pyrrhula pyrrhula	Bullfinch	1999.00		SD73I
Riparia riparia	Sand Martin	1999.00		SD73J
Riparia riparia	Sand Martin	2009.00	SD7236	SD7202736657
Sturnus vulgaris	Starling	2012.00	SD7336	SD7336
Sturnus vulgaris	Starling	1999.00		SD73I
Sturnus vulgaris	Starling	1999.00		SD73J
Sturnus vulgaris	Starling	1999.00		SD73P
Sturnus vulgaris	Starling	1998.00		SD73N
Turdus philomelos	Song Thrush	1999.00		SD73P

Turdus philomelos	Song Thrush	1999.00		SD73J
Turdus philomelos	Song Thrush	2001.00	SD7436	SD741363
Turdus philomelos	Song Thrush	1998.00		SD73N
Turdus philomelos	Song Thrush	2001.00	SD7436	SD742363
Turdus philomelos	Song Thrush	1999.00		SD73I
Berberis vulgaris	Barberry	2001.00		SD73J
Bryonia dioica	White Bryony	1910.00		SD73I
Bryonia dioica	White Bryony	1899.00	SD7336	SD7336
Carex riparia	Great Pond-Sedge	1988.00	SD7139	SD7179539039
Carex riparia	Great Pond-Sedge	1988.00	SD7137	SD7148737902
Carex vesicaria	Bladder-Sedge	1988.00	SD7139	SD7179539039
Cochlearia pyrenaica	Pyrenean Scurvygrass	1995.00		SD73N
Eleocharis quinqueflora	Few-Flowered Spike-Rush	1964.00	SD7536	SD7536
Gymnadenia conopsea	Fragrant Orchid	1891.00	SD7336	SD7336
Gymnadenia conopsea	Fragrant Orchid	1979.00	SD7339	SD731394
Populus nigra subsp. betulifolia	Black Poplar	1993.00	SD7238	SD728385
Populus nigra subsp. betulifolia	Black Poplar	1994.00	SD7238	SD729389
Populus nigra subsp. betulifolia	Black Poplar	1899.00		SD73I
Potamogeton berchtoldii	Small Pondweed	1977.00	SD7438	SD7438
Rorippa islandica	Northern Yellow-Cress	2011.00	SD7336	SD7336
Saxifraga hypnoides	Mossy Saxifrage	2001.00		SD73P
Scutellaria minor	Lesser Skullcap	1961.00	SD7536	SD7536
Thalictrum flavum	Common Meadow-Rue	1807.00		SD73I
Thalictrum flavum	Common Meadow-Rue	1864.00		SD73I
Clavaria purpurea	Purple Spindles	1998.00	SD7436	SD741361
Equisetum hyemale	Rough Horsetail	1975.00	SD7335	SD738359
Equisetum hyemale	Rough Horsetail	1975.00	SD7335	SD738359
Equisetum hyemale	Rough Horsetail	1975.00	SD7335	SD738359
Equisetum hyemale	Rough Horsetail	1994.00	SD7335	SD738359
Equisetum x font-queri	Horsetail	2005.00	SD7238	SD728384
Equisetum x font-queri	Horsetail	2005.00	SD7338	SD730384

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Equisetum x font-queri	Horsetail	2004.00	SD7239	SD72343936
Haliphus ruficollis	Haliphus ruficollis	1997.00	SD7536	SD7519036310
Helophorus minutus	Helophorus minutus	1997.00	SD7237	SD7215037717
Ilybius guttiger	Ilybius guttiger	1997.00	SD7237	SD72153771
Ilybius guttiger	Ilybius guttiger	1997.00	SD7137	SD7180037370
Ilybius guttiger	Ilybius guttiger	1997.00	SD7137	SD71803736
Ilybius guttiger	Ilybius guttiger	1997.00	SD7237	SD7215037717
Sesia bembeciformis	Lunar Hornet Moth	2006.00	SD7338	SD738383
Riccia fluitans	Floating Crystalwort	1997.00		SD73I
Gyroweisia tenuis	Slender Stubble-moss	2007.00		SD73J
Rhizomnium punctatum	Dotted Thyme-moss	1999.00		SD73P
Rhizomnium punctatum	Dotted Thyme-moss	1999.00		SD73I
Rhizomnium punctatum	Dotted Thyme-moss	1999.00		SD73N
Sanionia uncinata	Sickle-leaved Hook-moss	1999.00		SD73N
Sphagnum denticulatum	Cow-horn Bog-moss	1999.00		SD73N
Chiroptera	Bats	2009.00	SD7336	SD736369
Pipistrellus	Pipistrellus	2009.00	SD7337	SD738378
Cottus gobio	Bullhead	2011.00	SD7239	SD7215439426
Cottus gobio	Bullhead	2011.00	SD7238	SD7219838996
Cottus gobio	Bullhead	2011.00	SD7236	SD7243436510
Cottus gobio	Bullhead	2011.00	SD7135	SD7148935994
Cottus gobio	Bullhead	2011.00	SD7238	SD7247438254

