

Ecological Impact Assessment

BE-942.1a

**Land off Fernside Avenue, Almondbury,
Huddersfield**



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Executive Summary

Bagshaw Ecology Ltd have been requested by TH3M Architects to undertake an Ecological Impact Assessment of the Land off Fernside Avenue, Almondbury, Huddersfield, in relation to an application for planning. The development proposals are to construct five residential dwellings on the site.

The survey found the habitats to be of negligible to low ecological importance and it is not anticipated that their removal will have any significant ecological impacts on the landscape.

The scrub and trees on the site and the adjacent habitats to the west of the site provide suitable habitat for generalist species of commuting and foraging bat. To prevent negative impacts to bats it is recommended that wildlife friendly lighting is used within the development. Recommendations are made which follow guidelines prescribed by the Bat Conservation Trust (2018).

Hedgehogs *Erinaceus europaeus* have been recorded within 1km of the site. The site is suitable for use by foraging hedgehogs, which may be impeded with the addition of fenced gardens within the site. It is recommended suitable mitigation is used to facilitate hedgehog movement through the site.

It is recommended that any tree or scrub trimming or removal avoids the bird nesting season (1st March – 31st August inclusive). If this is not possible, a nesting bird check should be carried out within 48 hours prior to the commencement of works.

In accordance with the NPPF it is recommended that further planting and bird nesting habitats are incorporated into the development proposals to enhance the ecological value of the site.

1. Introduction

1.1. Background

Bagshaw Ecology Ltd have been requested by TH3M Architects to undertake an Ecological Impact Assessment of the land off Fernside Avenue, Almondbury, Huddersfield, hereafter referred to as 'the site'.

The purpose of the report is to identify the habitat types on the site, along with the presence or absence of any protected or notable species. The ecological impact of any proposed development is assessed, and mitigation, management and aftercare proposals are suggested when appropriate.

1.2. Site Details

The site located at grid reference SE 17204 16222 and is accessed off the north of Fernside Avenue in Almondbury. The site bordered by residential properties on all aspects.

The site comprises an area of wasteland and scrub.



Figure 1.1 Aerial imagery of site and surrounding area (Google Earth Pro, 2018)

1.3. Development Proposals

The development proposals are to construct five residential dwellings on the site.

2. Legislative Context

2.1. Legislation

The Wildlife and Countryside Act 1981 (As Amended), makes it an offence to:

- Deliberately or recklessly injure, kill or capture any animal protected under Schedule 5 of the act.
- Deliberately or recklessly kill, injure or take any wild bird; to take, damage or destroy the nest of any wild bird while occupied or being built, or to take or destroy the egg of a wild bird. Additional protection is afforded to bird species listed under Schedule 1 of the Act.
- Intentionally pick, uproot or destroy any wild plant included in Schedule 8 of the Act.

The Conservation of Habitats and Species Regulation 2017 makes it an offence to deliberately capture, kill or disturb any animal protected under Schedule 2 of the regulations. It is also an offence to damage or destroy a breeding site or resting place of an animal, even if the animal is not present at the time.

2.2. Policy

The UK Biodiversity Action Plan (UKBAP) includes a list of 943 national priority species and 56 habitats of principal importance, with all species and habitats having specific action plans defining the measures required to ensure their conservation. Although the UKBAP has since been superseded by the UK-Post 2010 Biodiversity Framework and a focus on County Biodiversity Plans, it remains a useful point of reference.

Section 41 of the Natural Environment and Rural Communities Act (NERC) 2006 required that any public bodies take into consideration any species and habitats listed in the UKBAP when implementing their duty and exercising any normal functions.

The National Planning Policy Framework (NPPF) states that planning decisions should aim to protect or enhance biodiversity and conservation interests, and where possible any development should aim to increase net gains in biodiversity.

The Kirklees Biodiversity Action plan identifies species and habitats of importance, including

- Nine species of mammal, including brown hare *Lepus europaeus*, mountain hare *Lepus timidus*, brown long-eared bat *Plecotus auritus*, noctule *Nyctalus noctula*, otter *Lutra lutra*, soprano pipistrelle *Pipistrellus pygmaeus*, water vole *Arvicola terrestris* and hedgehog *Erinaceus europaeus*.
- Three species of reptile and amphibian, including common lizard *Lacerta vivipara*, common toad, *Bufo bufo*, and crested newt *Triturus cristatus*.
- Twenty-three bird species.
- One species of invertebrate, northern wood ant *Formica lugubris*, which occurs at one site in the area.
- Two species of fish

The Kirklees Biodiversity Action Plan identifies 19 UKBAP habitats which occur in the area, in addition to three local BAP habitats: scrub; wet rush pasture and rough grassland; and riverine habitats.

3. Methods

3.1. Ecological Data Search

The local biological record centre, West Yorkshire Joint Services (WYJS), was consulted as to any protected/notable species within a 1km radius of the site.

The Department for Environment, Food and Rural Affairs' (DEFRA) Magic Maps website was consulted as to any land-based designations and priority habitats within a 1km radius of the site.

Aerial imagery was assessed using OS maps and Google Earth Pro to give an appraisal of the surrounding land use.

3.2. Phase 1 Habitat Survey

The habitat survey and mapping exercise was carried out in suitable weather conditions on the 19th of February 2019.

The survey was undertaken by Amy Reddick BSc (Hons) MSc GradCIEEM, an ecologist and licensed bat surveyor (2018-37680-CLS-CLS) with experience in carrying out phase 1 habitat surveys.

The study area was surveyed in accordance with UK Habitat Classification (UKHab) (2018) guidelines. Habitat types were assigned a primary code to a hierarchical level of at least two, and secondary codes to further clarify the habitat. Notes were made identifying important species, along with the presence of potential habitats for any protected or notable species.

Habitats and species present on or adjacent to the site were assessed using CIEEM's (2018) guidelines. Ecological features were classed as being of either international, national, regional, district, local, low or of negligible importance (see table 3.1).

Table 3.1 Importance of ecological features

Value of feature	Key examples
International	Internationally designated sites (SPA, pSPA, SAC, cSAC, Ramsar site, Biogenetic Reserve), or an area which meets designation for such sites. Internationally significant and viable areas of a habitat listed in Annexe 1 of the Habitats Directive. Any regularly occurring, globally threatened species. A regularly occurring population of an internationally important species, which is threatened or rare in the UK.
National	A nationally designated site (SSSI, NNR, LNR), or an area which meets designation for such sites. A regularly occurring significant number/population of a nationally important species (e.g. listed on the Wildlife and Countryside Act 1981 (as amended)). A feature identified as being of critical.
Regional/County	Viable areas of key habitat identified in the regional or county BAP. A regularly occurring significant population/number of any species important at regional/county level. Sites of conservation importance which exceed the district selection, but which fall short of SSSI selection guidelines.
District	Areas of habitat identified in District/City/Borough BAP. Sites that the designating authority has determined meet the published ecological selection criteria for designation.

Value of feature	Key examples
	Sites/features which are scarce within the District/City/Borough. A regularly occurring significant population/number of any species important at District/City/Borough level.
Local	Areas identified in a Local BAP. Sites/features which are scarce in the locality or which are considered to appreciably enrich the habitat resource within the local context (e.g. species-rich hedgerows). Any populations, species or habitats of local importance.
Low/Site	Habitats of moderate to low diversity which support a range of locally and nationally common species, the loss of which can be easily mitigated.
Negligible	Habitats of no ecological value, the removal of which requires no mitigation.

3.3. Bat survey

The trees on site were assessed for bats from the ground using binoculars to identify any potential roost features (PRFs). PRFs were assessed for their potential for roosting bats using methods prescribed by Collins (2016) and BRHK (2018).

The potential of trees for roosting bats was summarised using the criteria shown in Table 3.2, below.

Table 3.2 Bat roosting potential in trees

Roosting potential	Criteria
Confirmed presence	Presence confirmed by the survey.
High	A tree with one or more potential roost features that is obviously suitable for large numbers of bats.
Moderate	A tree with one or more potential roost features but which is unlikely to support roosts of high conservation status.
Low	A tree of sufficient size and age to contain potential roost features but with none seen from the ground, or features with very limited roost potential.
Negligible	Negligible habitat features unlikely to be used by roosting bats.

4. Results

4.1. Constraints

The site survey was conducted outside the optimum period for Phase 1 Habitat Surveys. Some species are only visible at certain times of the year and may not have been present during the survey.

4.2. Designated Sites

A search on Magic Maps (DEFRA, 2019) found several notable habitats within 1km of the site including:

- One good quality semi-improved grassland priority habitat located 520m southeast of the site,
- One lowland fens priority habitat located 560m east of the site,
- One Ancient woodland priority habitat located 480m to the north of the site,
- Ten deciduous woodland priority habitats the closest of which is located 125m to the northwest of the site.

WYJS hold records of six designated sites within 1km of the site including:

- Almondbury common, a Local Wildlife Site (LWS) consisting of ancient and semi-natural woodland,
- Arkenley Lane, an LWS consisting of a mixture of grassland, scrub and woodland on a south facing slope.
- Carr Wood, an LWS comprising an acid woodland close to a golf course,
- Castle Hill, an LWS consisting of a mixture of acid grassland and scrub on steep slopes.
- Huddersfield Narrow Canal, an LWS comprising a section of the canal and adjacent habitats,
- Round Wood, an LWS comprising an ancient woodland surrounded by houses and gardens. This was the closest to the site, located 480m to the north of the site.

4.3. Habitats

The surrounding land use was suburban with some small woodlands and recreational green space nearby. Connectivity to the site is limited from the north, south and east with some natural habitat providing connectivity to the west. Tree cover in the immediate surrounding area is intermediate, with several small woodlands and street trees providing suitable habitat for generalist species of commuting and foraging bats.

The site comprises an area of wasteland with scrub and scattered trees. Table 4.1, below, summarises the habitat types found on the site. A map of the habitats can be viewed in the appendices.

Table 4.1 Habitats as defined by UKHAB (2018)

UK Habitat	Description	Ecological Value
H2b Species poor hedgerow	A beech <i>Fagus sylvatica</i> hedge bordered the west boundary of the site.	Low

UK Habitat	Description	Ecological Value
H3h mixed scrub	Areas of dense scrub were located to the northwest and east of the site. The scrub to the northwest was over 3m in height and predominantly hawthorn <i>Crataegus monogyna</i> with common bramble <i>Rubus fruticosus</i> , holly <i>Ilex aquifolium</i> , cherry laurel, cleavers <i>Galium aparine</i> , common ivy <i>Hedera helix</i> , common nettle <i>Urtica dioica</i> and Spanish bluebell <i>Hyacinthoides hispanica</i> . The scrub to the east was composed predominantly of low growing bramble with rosebay willowherb <i>Chamaenerion angustifolium</i> , common nettle, foxglove <i>Digitalis purpurea</i> and sheeps sorrel <i>Rumex acetosella</i> . Several mature trees were scattered throughout the scrub including sessile oak <i>Quercus petraea</i> , ash <i>Fraxinus excelsior</i> , hazel <i>Corylus avellana</i> and wild privet <i>Ligustrum vulgare</i> . Fly tipping was prevalent.	Low
G4 modified grassland	Areas of poor semi-improved grassland adjacent to hardstanding and scrub. Graminoid species included perennial ryegrass <i>Lolium perenne</i> , cocks' foot <i>Dactylis glomerata</i> , common bent <i>Agrostis capillaris</i> and annual meadow grass <i>Poa annua</i> . Forb species included common hogweed <i>Heracleum sphondylium</i> , groundsel <i>Senecio vulgaris</i> , lesser burdock <i>Arctium minus</i> , rosebay willowherb, sheeps sorrel, montbretia <i>Montbretia sp.</i> , ribwort plantain <i>Plantago lanceolata</i> , wood spurge <i>Euphorbia amygdaloides</i> and field speedwell <i>Veronica persica</i> .	Low
U1b Hardstanding	Areas of gravel and hardstanding at the entrance to the site and to the west. Fly tipping was prevalent throughout.	Negligible

4.4. Bats

Desk based study

Ten species of bat have been recorded in West Yorkshire, including Brandt's bat *Myotis brandtii*, Daubenton's bat *Myotis daubentonii*, whiskered bat *Myotis mystacinus*, Natterer's bat *Myotis nattereri*, Leisler's Bat *Nyctalus leisleri*, noctule *Nyctalus noctula*, Nathusius' pipistrelle *Pipistrellus nathusii*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared bat *Plecotus auritus* (Harris and Yalden, 2008).

Seven of the 10 species recorded in West Yorkshire, including whiskered bat, Brandt's bat, Natterer's bat, Leisler's bat, common pipistrelle, soprano pipistrelle and brown long-eared bat are known to roost in buildings at some point throughout the seasonal year (Harris and Yalden, 2008; Dietz *et al*, 2011; Collins, 2016).

WYJS holds records of bat species within 1km of the site, including: Daubenton's bat, Leisler's bat, Noctule, common pipistrelle, soprano pipistrelle and brown long eared bat.

The closest field record was of a common pipistrelle located 470m from the site.

DEFRA (2019) holds no records of granted European Protected Species Licenses within 1km of the site.

Bat scoping survey

There were no permanent artificial structures on the site. A storage container was located to the west of the site. This was of metal construction and well-sealed with no features suitable for roosting bats.

None of the trees on the site had potential for roosting bats.

The scrub on the site provides suitable habitat for generalist species of commuting and foraging bats.

4.5. Other Mammals

WYJS holds records of several mammal species within 1km of the site including: badger *Meles meles*, brown hare *Lepus europaeus*, European hedgehog *Erinaceus europaeus*.

The closest field record was of a hedgehog located 668m from the site.

The site provides suitable foraging habitat hedgehogs; however, no signs of hedgehogs were identified during the site survey.

There were several mammal trails through the scrub on site. No evidence of badgers, including setts or latrines, was observed. Numerous domestic cats were observed commuting through the site during the survey.

4.6. Reptiles and Amphibians

WYJS holds records of several reptile and amphibian species within 1km of the site including: grass snake *Natrix natrix*, common toad *Bufo bufo* and common frog *Rana temporaria*.

The closest field record was of a common frog located 1.5km from the site.

DEFRA (2018) holds no records of granted European Protected Species Licences for great crested newts *Triturus cristatus* within 1km of the site.

A search on aerial imagery (Google Earth Pro, 2018) revealed no ponds within 250m of the site. There may be ponds within residential gardens which could not be viewed on aerial imagery.

The habitats on the site were considered suboptimal for reptiles and amphibians consisting predominantly of uniform scrub and hardstanding with poor connectivity to any suitable adjacent habitats.

4.7. Bird Species

WYJS holds records of several bird species within 1km of the site including: kingfisher, peregrine falcon and brambling all of which are afforded protection under Schedule 1 of the Wildlife and Countryside Act 1981.

The scrub and scattered trees on the site provide suitable habitat for nesting birds. Several species of bird including: blue tit *Cyanistes caeruleus*, great tit *Parus major*, black bird *Turdus merula*, wood pigeon *Columba palumbus* and carrion crow *Corvus corone* were observed utilising the site during the survey.

4.8. Invertebrates

The site provided suitable pollination opportunities for generalist invertebrates.

5. Impact Assessment

5.1. Habitats

The habitats on site are all of negligible to low ecological value, consisting predominately of hardstanding and mixed scrub. Due to the value of these habitats and limited connectivity of the site, it is not anticipated that the development proposals will impact upon the ecological value of the surrounding area.

5.2. Bats

There were no artificial structures or trees on the site with potential for roosting bats.

The habitats on site provide suitable habitat for generalist species of commuting and foraging bat species. Any lighting used in the development directed onto natural habitats to the west or retained vegetation on the site could have negative impacts on bats.

5.3. Other Mammals

The site provides suitable habitat for hedgehogs, which are identified as a Priority Species within Kirklees. If fences are used to divide new residential gardens this could have negative effects on hedgehog migration through the landscape.

There are no foreseeable impacts of the development proposals upon any other notable or protected mammal species.

5.4. Reptiles and Amphibians

There are no foreseeable impacts of the development proposals upon reptiles or amphibians.

5.5. Birds

The trees and scrub on site provide suitable habitat for nesting birds. All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended). The removal or trimming of any of the trees on site during bird nesting season could disturb nesting birds and potentially kill or injure their young.

5.6. Invertebrates

There are no foreseeable impacts of the development proposals upon any notable invertebrate species. The development proposals will not impact upon pollination resources used by invertebrates in the surrounding area.

6. Conclusion and Recommendations

6.1. Avoidance of Ecological Impacts

To avoid impacting commuting and foraging bats it is recommended that exterior lighting as part of the proposed development is not directed onto any retained vegetation to the west or north of the site. Where exterior lighting is used, the following recommendations prescribed by the Bat Conservation Trust (2018) should be followed:

- All luminaires should lack UV elements,
- LED luminaires should be used where possible,
- A warm white spectrum (<2700 kelvin) should be adopted to reduce blue light,
- External security lighting should be set to a short timer or motion sensor
- The spread of light should be at, or near horizontal level,
- The times that lights are used should be limited to provide some dark periods.

It is recommended that any tree or scrub trimming or removals avoid the bird nesting season (1st March – 31st August inclusive). If this is not possible, a nesting bird check should be carried out within 48 hours prior to the commencement of works, and works should only commence if it has been established that nesting birds are not present.

To aid the movement of hedgehogs through the site it is recommended that properties are divided by hedgerows, or if fences are to be used, that holes are cut into fences between gardens approximately 15x15cm in size.

There are no foreseeable impacts of the development proposals upon any other protected or notable species. In the unlikely event that any protected species such as badgers, bats, reptiles or amphibians are identified during works, all works should cease, and a suitable qualified ecologist should be consulted.

6.2. Mitigation and Ecological Enhancement

In accordance with the NPPF it is recommended that the ecological value of the site is enhanced. Several areas of vegetation are to be retained within the development. These areas could be improved via further planting of trees and shrubs beneficial to native wildlife. Ornamental species may be included provided they are known to benefit British wildlife and are not listed as invasive by Schedule 9 of the Wildlife and Countryside Act 1981. Suggested species are included in table 6.1 below.

Table 6.1 Suggested species for further planting

Tree species	Shrub species
Rowan <i>Sorbus aucuparia</i>	Senecio Sunshine <i>Brachyglottis sunshine</i>
Wild cherry <i>Prunus avium</i>	Mexican orange blossom <i>Choiya ternata</i>
Crab apple <i>Malus sylvestris</i>	Dog rose <i>Rosa canina</i>
Field maple <i>Acer campestre</i>	English lavender <i>Lavandula angustifolia</i>
Sessile oak <i>Quercus petraea</i>	Hebe vernicosa <i>Hebe vernicosa</i>

Trees planted for enhancement should be standard in size and should be planted in accordance with BS845: 2014 – Trees: from Nursery to Independence in the Landscape. All trees should be affixed with a wooden stake, secured to the tree by a biodegradable cable tie. An organic woodchip mulch should be applied in a 1m radius around tree stems.

Several hedgerows will also be incorporated into the development. Hedgerows should consist of native species. Of these, 25% should be hawthorn and 25% should be blackthorn. Suggested species and percentages are provided in table 6.2, below.

Table 6.2. Species and approximate percentage recommended for hedges

Common name	Binomial name	Percentage
Hawthorn	<i>Crataegus monogyna</i>	25
Blackthorn	<i>Prunus spinosa</i>	25
Hazel	<i>Corylus avellana</i>	10
Elder	<i>Sambucus nigra</i>	10
Holly	<i>Ilex aquifolium</i>	10
Dog rose	<i>Rosa canina</i>	10
Sessile oak	<i>Quercus petraea</i>	5
Rowan	<i>Sorbus aucuparia</i>	5

Hedges should consist of two staggered rows of bare root whips, spaced 20-30cm apart. The number of trees used should correspond to the length of the new hedge; for example, a hedge of 10m should include around 80 trees.

In the interests of biosecurity, trees should be sourced from a UK based nursery. Trees should ideally be grown from seed within the UK, or if this is not possible to source, should have been grown on in the UK for at least one year after import.

Aftercare will be required for a period of at least three years after planting. This should include watering, removal of weeds and if necessary, removal of cable ties, formative pruning and reapplication of mulch. If any trees fail to establish within this period, then they should be replaced.

It is also recommended that nesting bird habitat is incorporated into the development proposals which should consist of three Schwegler 1B boxes (or similar alternative). These should be hung from trees at height of at least 1.5m with clear flight paths to the entrances.

7. References

- Bat Conservation Trust (2018). Bats and artificial lighting in the UK. Bat Conservation Trust, London.
- British Standards (2014) BS845:2014- Trees: from Nursery to Independence in the Landscape. British Standards Institute, London.
- CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.
- CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and marine*. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins, J. (ed) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition)*. The Bat Conservation Trust, London.
- DEFRA (2019). *Magic Maps* [online]. Available at: >www.magic.defra.gov.uk< [accessed 27th February 2019]
- Dietz, C., Helversen, O., Dietmar, N. (2011). *Bats of Britain, Europe & Northwest Africa*. A & C Black, London.
- Google Earth Pro (2019). *Google Earth* [online]. Available at: >www.earth.google.com< [accessed 27th February 2019]
- Harris, S., Yalden, D. (eds.) (2008). *Mammals of the British Isles: Handbook 4th Edition*. The Mammal Society, London.
- Kirklees (2018). Biodiversity Action Plan [online]. Available at: >www.kirklees.gov.uk< [accessed 27th February 2019]
- Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. English Nature.
- Mitchell-Jones, A.J., McLeish, A.P. (2004). *Bat Workers Manual*. Joint Nature Conservation Committee.
- UK Habitat Classification Working Group (2018). *UK Habitat Classification User Manual*. Ecountability Ltd, Kentisbeare.
- Underhill-Day, N. (2017). *Bat Roost Trigger Index*. Swift Ecology, Pensax.

8. Appendices

Appendix 1: Photographs



Plate 1 Hardstanding on the site



Plate 2 Hardstanding on the site



Plate 3 Grassland and scattered trees



Plate 4 Scrub in the centre of the site



Plate 5 Scrub and scattered trees



Plate 6 Scrub on the site



Plate 7 Scrub and adjacent residential buildings



Plate 8 Scrub and scattered trees to east of site



Plate 9 Scrub to the east



Plate 10 Scrub to the east



Plate 11 Hardstanding and scrub at centre of site



Plate 12 Entrance to the site

Appendix 2: Phase 1 Habitat Map

Project: Fernside Avenue

Drawn by: Amy Reddick

Date: 27/02/2019


0 10 20 30



Key


Uk Habitats:

 g4 - Modified grassland

 h2b - Species-poor
hedgerows

 h3 - Mixed scrub

 u1b - Hardstanding

 u1b5 - Buildings

