



PRELIMINARY ECOLOGICAL APPRAISAL

LAND AT HOWDEN-LE-WEAR COUNTY DURHAM

**AMS-22-14
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PRELIMINARY ECOLOGICAL APPRAISAL

LAND AT HOWDEN-LE-WEAR HOWDEN-LE-WEAR COUNTY DURHAM DL15 8EP

**GRID REF
NZ166329**

REPORT FOR AMS PLANNING

Quality Assurance

Version	Prepared by	Date	Checked by	Date	Approved by	Date
R1	Katie Pearson	04/07/22	Tim Asplin	05/07/22	Hannah Currie	06/07/22

This assessment is intended to provide an accurate description of findings from the desktop study and from survey work undertaken on the date shown; however, all ecological data has a shelf life, which is dependent on the discretion of the governing body overseeing licencing or condition application. This is usually one survey season. This assessment cannot fully account for the reliability of third-party data provided or for any changes to site conditions following the completion of the survey work due to activities carried out on site or the dynamic nature of the natural environment. All work carried out by Naturally Wild Consultants Ltd is subject to our Terms and Conditions.

The report has been produced in accordance with current best practice guidelines.

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EXECUTIVE SUMMARY

Naturally Wild were instructed to undertake a Preliminary Ecological Appraisal (PEA) at Land at Howden-Le-Wear, Howden-Le-Wear. The site comprised an area of grassland with a sparsely vegetated path, leading from a hardstanding car park area to a small area of concrete hardstanding within the western aspect of the grassland. The proposals are erection of a stable building (including tack room, hay store and area for lambing) with associated hardstanding.

The PEA comprised two parts: a desktop study and a survey visit. The desktop study collated available public information regarding the biodiversity of the area, including the habitat structure of the site and surrounding area and the presence of any statutory or non-statutory designated sites. In addition, biological records within 1 km of the site were requested from the Environmental Records Information Centre North East (ERIC).

The survey visit consisted of an assessment of all habitats on site and in the surrounding area to determine their ecological value and was conducted on 27/06/22 by ecologists Katie Pearson MSc. BSc. (hons) and Lauren Gibson MSc. BSc. (hons).

The site was found to be of low ecological value, with some habitat for nesting birds in the form of grassland. Following the site assessment and in review of the findings, a series of ecological mitigation and enhancement measures to be incorporated into the works have been outlined. These include carrying out the proposed works outside of bird nesting season, and a sensitive lighting scheme. Full details are provided in Section 5.

Providing the recommendations of this report are implemented in full, Naturally Wild would conclude that there will not be a significant impact to protected species or habitats as a result of the proposed works.

SUMMARY OF POTENTIAL ECOLOGICAL CONSTRAINTS

Summary Assessment

Works can start only once authorised by an ecologist.	Additional ecological works required.	No action required.
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Potential Ecological Constraints		
Designated sites		
Ecologically valuable watercourses		
Plants and habitats		
Badgers		
Bats		
Dormice		
Great crested newts		
Nesting birds		Works carried out outside of bird nesting season, if not feasible, nesting bird check to be carried out by ecologist prior to start of works.
Otters		
Reptiles		
Water voles		
White-clawed crayfish		
Invasive species		
Other		

Recommended Actions		
Requirement for formal Environmental Impact Assessment		
Requirement for consultation with statutory environmental bodies		
Requirement for 'assent' from Natural England (e.g., within or adjacent to a European site or SSSI)		
Requirement for further ecological surveys		
Requirement for protected species licensing		
Requirement for an ecologist to oversee the works (see below)		As above regarding nesting birds.

The contractor should inform the ecologist of the works programme with sufficient notice to coordinate the following

Ecologist to be on site before works begin (includes vegetation clearance)		Works carried out outside of bird nesting season, if not feasible, nesting bird check to be carried out by ecologist prior to start of works.
Ecologist to be on site during the first day of works		
Ecologist to be on site throughout the works		
Ecologist to be on site as the works are completed		
Ecologist to be on site once all the works is completed		

PRELIMINARY ECOLOGICAL APPRAISAL: LAND AT HOWDEN-LE-WEAR

1 INTRODUCTION

Naturally Wild were instructed to undertake a Preliminary Ecological Appraisal (PEA) at Land at Howden-Le-Wear, Howden-Le-Wear (Figure 1). The site comprised two areas of grassland with a sparsely vegetated path, leading from a hardstanding car park area to the north-eastern aspect of the grassland. The main objective of the assessment was to determine the suitability of the site to support protected species and to check for any evidence of the presence of protected species, as well as the presence of any protected or notable habitats.

The proposals are the erection of a stable building (including tack room, hay store and area for lambing) with associated hardstanding, which may result in impacts to grassland habitat within the red line boundary. As part of the planning process, an ecological assessment is required to determine if any protected or notable species/habitats are likely to be affected by the proposed works, and to show how any negative ecological impacts would be mitigated and compensated.



Figure 1. Site location plan. Red line shows the area proposed for re-development.

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2 RELEVANT LEGISLATION

British wildlife is protected by a range of legislation, the most important being the Wildlife and Countryside Act 1981 (as amended), The Conservation of Habitats and Species Regulations 2017 (as amended), and the Natural Environment and Rural Communities (NERC) Act 2006.

The Wildlife and Countryside Act, as amended mainly by the Countryside Rights of Way (CRoW) Act 2000, protects species listed in Schedules 5 and 8 of the Act (animals and plants respectively) from being killed, injured, and used for trade. For some species, such as great crested newts and all bat species, the provisions of this Act go further to protect animals from being disturbed or taken from the wild and protects aspects of their habitats. The Act also stipulates that offences occur regardless of whether they were committed intentionally or recklessly. The parts of this legislation that apply to most reptile species are in regard to killing, injury and trade only and do not protect their habitat, nor are they protected from disturbance or from being taken from their habitat.

The Conservation of Habitats and Species Regulations is the English enactment of European legislation and provides similar but subtly different protection for species listed on Schedules 2 and 4 of those regulations. Species to which these provisions apply are known as European Protected Species. Activities that might cause offences to be committed can be legitimised by obtaining a licence from the relevant statutory body.

The NERC Act 2006 extends the biodiversity duty set out in the CRoW Act to public bodies and statutory undertakers to ensure due regard to the conservation of biodiversity. Section 40 of the Act states: *“every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.”* Section 41 of the Act sets out a list of habitats and species that are considered to be of principal importance for the conservation of biodiversity in England. These species may be referred to as ‘priority species/habitats’ or ‘UK Biodiversity Action Plan (BAP) priority species/habitats.’

Further details on the legislation protecting species of British wildlife relevant to this assessment can be found in Section 8.1 of this report.

3 METHODOLOGY

3.1 Overview

The PEA comprised a desktop study and a survey visit. All work undertaken has been completed in line with official guidelines produced by Natural England and the Chartered Institute for Ecology and Environmental Management (CIEEM), and British Standard document BS 42020: 2013 '*Biodiversity – Code of practice for planning and development.*'

The desktop study collated available public information regarding the biodiversity of the area, including the habitat structure of the site and surrounding area and the presence of any statutory or non-statutory designated sites, and any records of previously granted European Protected Species (EPS) mitigation licences in relation to certain species, using the Multi-Agency Geographic Information for the Countryside (MAGIC) resource, along with a search of the Local Planning Authority's website for any trees in the area covered by Tree Preservation Orders (TPOs). In addition, biological records within 1 km of the site were requested from the Environmental Records Information Centre North East (ERIC), which included records of protected and notable species and any nearby non-statutory designated sites (Local Wildlife Sites, Sites of Importance for Nature Conservation, etc.) not available through MAGIC.

The objective of the survey was to ascertain if any protected species may be using the site, document the habitats present and determine any potential ecological impacts during and following the completion of the works. The survey would be completed under suitable weather conditions and by experienced ecologists. Further to this, the results of the desktop study and site survey would be assessed to determine the ecological impacts posed by the work, any additional survey work required, and how such impacts should be mitigated and compensated for.

The survey work and the preparation of this report has been conducted by ecologists Katie Pearson MSc. BSc. (hons) and Lauren Gibson MSc. BSc. (hons) who are experienced in undertaking ecological assessments.

3.2 Survey Area

The application site is located at Grid Reference NZ166329 and can be accessed via the A689 (Figure 2). The assessment focused on the application site, as well as all habitats in the immediate surrounding area (where access was available).



Figure 2. Location of the surveyed area. Site boundary is shown by the red line.

(Image taken from Google Earth Pro: ©2022 Map Data Google).

3.3 Survey Constraints

There were no constraints with regards to site access or completion of the survey objectives across the site.

3.4 Field Survey

3.4.1 Habitat Assessment

The survey was carried out on Monday 27th June 2022 and consisted of an assessment and classification of the habitats on and adjacent to the site, based on their structure and the dominant vegetation coverage, where present, following the UKHabs habitat survey methodology (Butcher 2020). Following this, the habitats present were assessed for their suitability to support protected species and for the presence of any evidence of protected species. Each habitat present was then assigned a level of value (negligible, low, moderate, or high) on a geographical scale from site level to European/international level, with reference to guidance provided by CIEEM (2018).

Weather conditions during the site visit were dry and sunny, with a temperature of 17°C, cloud cover of 3 (Oktas), and wind of 3-4 (Beaufort).

3.4.2 Protected Species Impact Assessment

Based on the habitats present, the site was assessed with particular regard to determine the presence or otherwise of badgers (*Meles meles*), bats, great crested newts (GCN) (*Triturus cristatus*), nesting birds, and reptiles. An overview of the survey methods used is outlined below.

Badgers: An assessment of the site and surrounding habitats (where access was available), with particular focus on any areas of dense vegetation, was carried out in order to identify any evidence of badgers, including:

- the presence of any setts
- well-used runs/tracks
- supplementary evidence, such as hairs or prints
- badgers themselves
-

Bats: A preliminary ground level roost assessment of any trees on or directly adjacent to the site was carried out in order to identify the presence of any potential roost features (PRFs) for bats, such as split bark, woodpecker holes and other cavities for bats and/or evidence of roosting bats. All trees assessed were categorised in terms of their value in accordance with the Bat Conservation Trust (BCT) survey guidelines (Collins, 2016), shown in Table 1.

Table 1. Guidelines for assessing bat roosting potential of structures and trees.

Suitability	Habitat description	Further action required?
Negligible	Negligible habitat features on site likely to be used by roosting bats.	No further bat risk assessment effort or bat activity surveys are required.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).	Structures: One bat activity survey is required to determine whether the structure is being utilised by roosting bats; this may be a dusk or dawn survey. This survey must occur between May and August. The discovery of a roosting bat during this single bat activity survey will require further survey effort.
	A tree of sufficient size and age to contain PRFs, but with none seen from the ground or features seen with only very limited roosting potential.	Trees: No further bat risk assessment effort or bat activity surveys are required.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection conditions and surrounding habitat, but unlikely to support a roost of high conservation status.	Two bat activity surveys are required to determine whether the structure or tree is being utilised by roosting bats; this should be comprised of one dusk and one dawn survey. One survey must occur between May and August.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Three bat activity surveys are required to determine whether the structure or tree is being utilised by roosting bats; this should be comprised of one dusk and one dawn survey, with an additional survey (either dusk or dawn). Two surveys must occur between May and August.

Evidence of roosting bats includes: bat droppings in, around or below an entrance hole; staining around an entrance hole; audible squeaking at dusk or in warm weather; smoothening of surfaces around cavity or an entrance hole; distinctive smell of bats.

Great Crested Newts: An assessment of the habitats present on the site was carried out in order to determine their suitability to support foraging and sheltering GCN, and any natural or artificial refugia (such as logs, stones, discarded building materials, etc.) present were also lifted to check for the presence of GCN.

In addition, any ponds on-site or within 500m of the site boundaries¹ were assessed for their habitat suitability for GCN (where access was available), utilising the modified Great Crested Newt Habitat Suitability Index (ARG UK 2010; Oldham *et al.* 2000). The Habitat Suitability Index (HSI) provides a means of evaluating habitat quality for the species. It is a numerical index between 0 and 1, where 0 indicates completely unsuitable habitat and 1 represents optimal habitat. The HSI score is then utilised to define the suitability of the pond on a categorical scale (Table 2); however, it should be noted that the system is not precise enough to allow the conclusion that a pond with a high score will definitely support GCN, whilst those with a low score will definitely not.

Table 2. Respective pond suitability categories for each band of HSI scores.

HSI Score	Pond Suitability
< 0.5	Poor
0.5 – 0.59	Below average
0.6 – 0.69	Average
0.7 – 0.79	Good
> 0.8	Excellent

The HSI is given by assigning a quantitative figure between 0 and 1 to each of the 10 Suitability Indices assessed during desktop and field assessments, e.g., pond area, water quality, level of shading. The 10 Suitability Indices are multiplied by each other, with the tenth root of the product of the multiplied Indices then calculated, giving a figure for habitat suitability.

One pond was identified to the northwest of the proposed site during the desktop study; however, it was situated on private land and the ecologists could not gain access to it to assess suitability for GCN. As a road and a beck separate this pond with the proposed development site, the proposed developments are considered to have a negligible impact on this pond.

Nesting Birds: The habitats on site were assessed to determine their suitability for nesting, with a check carried out for the presence of any active nests or any evidence of nesting behaviour.

Reptiles: The assessment for reptiles followed survey guidance provided by Froglife (1999), with an assessment of the habitats present carried out to determine their suitability to support reptiles for shelter,

¹ Typical maximum roaming range of GCN from a pond which they occupy.

foraging and basking, and with any refugia lifted to check for the presence of reptiles or evidence of reptiles, such as sloughs (shed skins).

Other Wildlife: In accordance with good practice, the site was checked for the presence of any other protected/notable species, with particular regard to any other species highlighted in the desktop study.

Invasive Species: The site was also surveyed for the presence of any invasive, non-native flora or fauna.

3.4.3 Biodiversity Baseline

Following the completion of the desktop study and survey work, a biodiversity baseline calculation has been undertaken to determine the number of 'biodiversity units' present on site prior to the works. The baseline has been determined using the current DEFRA Biodiversity Metric tool. A summary of the results is provided in Section 4.5 and shown in the Appendix. Full results are provided separately.

4 RESULTS

4.1 Desktop Study

4.1.1 Designated Sites

Statutory Designated Sites:

The nearest statutory designated site is Witton-le-Wear SSSI, which is approximately 1,327m south of the proposed development site at its nearest point. Witton-le-Wear SSSI contains the only extensive and biologically important open water body in West Durham. The site centres upon Marston Lake with its fringing tall fen vegetation, with two smaller water bodies, areas of mature alder woodland and willow scrub, and recently developed neutral grasslands present. This site supports a variety of notable flora and fauna including the rare leaf beetle (*Longitarsis reichei*) and various orchid species, as well as providing suitable habitat for a range of mammals, bats, birds and reptiles. Notwithstanding the above, due to the proposed development works being small scale and restricted within the red line boundary, impacts to this site from the proposed works are considered to be negligible.

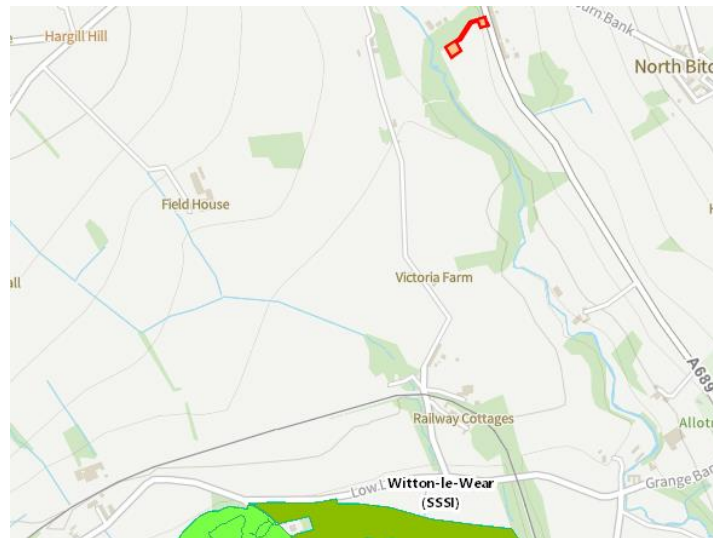


Figure 3. Location of the surveyed site (red) in relation to the nearest designated site.

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Non-statutory Designated Sites: The nearest non-statutory designated site is an area of greenbelt approximately 10,507 m from the proposed development site. Greenbelt areas can provide a variety of habitat for wildlife such as birds, mammals and bats, and are areas often outside of cities which are protected from development. Due to the distance from the proposed development site, and the localised nature of the proposed works within the red line boundary, any impacts to this site from proposed works are expected to be negligible.

Notable Habitats:

30 areas of broadleaved deciduous woodland are present within 1km of the proposed site, with the closest being an area of broadleaved deciduous woodland directly bordering the site to the north and west. An area of coniferous woodland also directly borders the site to the north. Both coniferous and broadleaved deciduous woodland are UK BAP priority habitats, and provide suitable foraging and nesting habitat for a range of mammal, bat, and bird species. As this habitat directly borders the proposed development site,

suitable mitigation measures are needed to reduce any impacts to the wildlife within this area. Assuming all mitigation considerations have been met, the impacts to this area are expected to be negligible. See section 5.2 for further details on mitigation methods.

Approximately 153 metres from the site at its closest point is an area of scrub. Scrub habitat provides opportunities for nesting, shelter and foraging for a range of species, including nesting birds, bats and mammal species. As the area of scrub is not directly connected to the proposed development site, and the developments are retained within the red line boundary, impacts to this habitat are considered to be negligible.

4.1.2 Biological Records

A total of 8783 records were returned from Environmental Records Information Centre North East (ERIC), which can be separated into the following groups: 8468 bird records (140 species), 230 insect records (rockface beetle, small heath, dingy skipper, wall, small square-spot, *opomyza punctella*), 54 mammal records (17 species), 24 plant & moss records (20 species), Four amphibian records (common toad, palmate newt, common frog), one fish record (brown trout), one mollusc record (little whirlpool ram's horn snail), one fungus record (wood pinkgill). A full list of received records is available on request with the permission of the records centre, excluding records of sensitive species.

4.2 Site Assessment

4.2.1 On-Site Ecological Features

The site comprised two areas of grassland, bordering a sparsely vegetated path, with a small hardstanding car park to the northeast aspect of the site. The general ecological value of each habitat is described in the paragraphs below, with any notable species-specific findings detailed in Section 4.3. A UKHabs habitat map showing the distribution of the habitats on site is provided at the end of this section, and a series of site photographs giving an overview of the habitats present are provided in Section 6.

G1 -Grassland

G1 borders the northern aspect of the proposed development site and is a strip of moderate-high distinctiveness grassland following the northern aspect of the path (Images 4, 5 & 6). This area of grassland contained at least 34 plant species, including grasses Yorkshire fog (*Holcus lanatus*), perennial ryegrass (*Lolium perenne*), and crested dogs'-tail (*Cynosurus cristatus*), as well as wildflowers, including birds foot trefoil (*Lotus corniculatus*), selfheal (*Prunella vulgaris*), lesser trefoil (*Trifolium dubium*) and meadow buttercup (*Ranunculus acris*). A full list of species is available upon request. This area was considered to be valuable for invertebrate species due to the wide variety of plant species present. Also present in this area was a site of suitable reptile refugia, in the form of a pile of stacked wooden logs (Image 6). Mammal tracks were observed through the area from the woodland to the northern aspect of site, as well as rabbit droppings. This area is suitable as foraging and commuting habitat for a range of species including birds, bats, and small mammals. However, due to the low impact nature of the currently proposed works on this area of grassland, impacts on species that utilise this area are considered to be negligible. Himalayan balsam (*Impatiens glandulifera*) was also present within this area, outlined in Figure 5.

G2 – Grassland

G2 borders the southern aspect of the path and becomes a larger square area of grassland to the southwest (Images 2,3 and 7). 15 plant species were identified as being present within this area, including grass species Timothy (*Phleum pratense*), crested dogs'-tail (*Cynosurus cristatus*), perennial rye grass (*Lolium perenne*), and bent (*Agrostis sp.*), Yarrow (*Achillea millefolium*), rush (*Juncus sp.*), and dandelion (*Taraxacum sp.*) were also present. A full list of species is available upon request. Patches dominated by white clover (*Trifolium repens*) were also present in this area. As above, G1 was considered to be valuable for invertebrate species due to the wide variety of plant species present. This area is suitable as foraging and commuting habitat for a range of species including birds, bats, and small mammals. However, due to the low impact nature of the currently proposed works on this area of grassland, impacts on species that utilise this area are considered to be negligible as most of the surrounding area of grassland in this field will remain.

Path

A sparsely vegetated unsealed dirt path (Image 1) was present which connects the carpark to the north-eastern aspect to G2 at the south-western aspect. Present along the centre of the path was perennial ryegrass (*Lolium perenne*), daisy (*Bellis perennis*) and creeping buttercup (*Ranunculus repens*). Due to the low plant cover in this area, any impacts upon this area from the proposed development are likely to have negligible effects on wildlife.

Car Park

An area of hardstanding car park was present to the northeast aspect of the proposed development site. The borders of this carpark area contained 23 plant species, including ragwort (*Jacobaea vulgaris*), false oatgrass (*Arrhenatherum elatius*), common hogweed (*Heracleum sphondylium*), dog rose (*Rosa canina*), yarrow (*Achillea millefolium*) and spear thistle (*Cirsium vulgare*). A full list of species is available upon request. (Image 5)

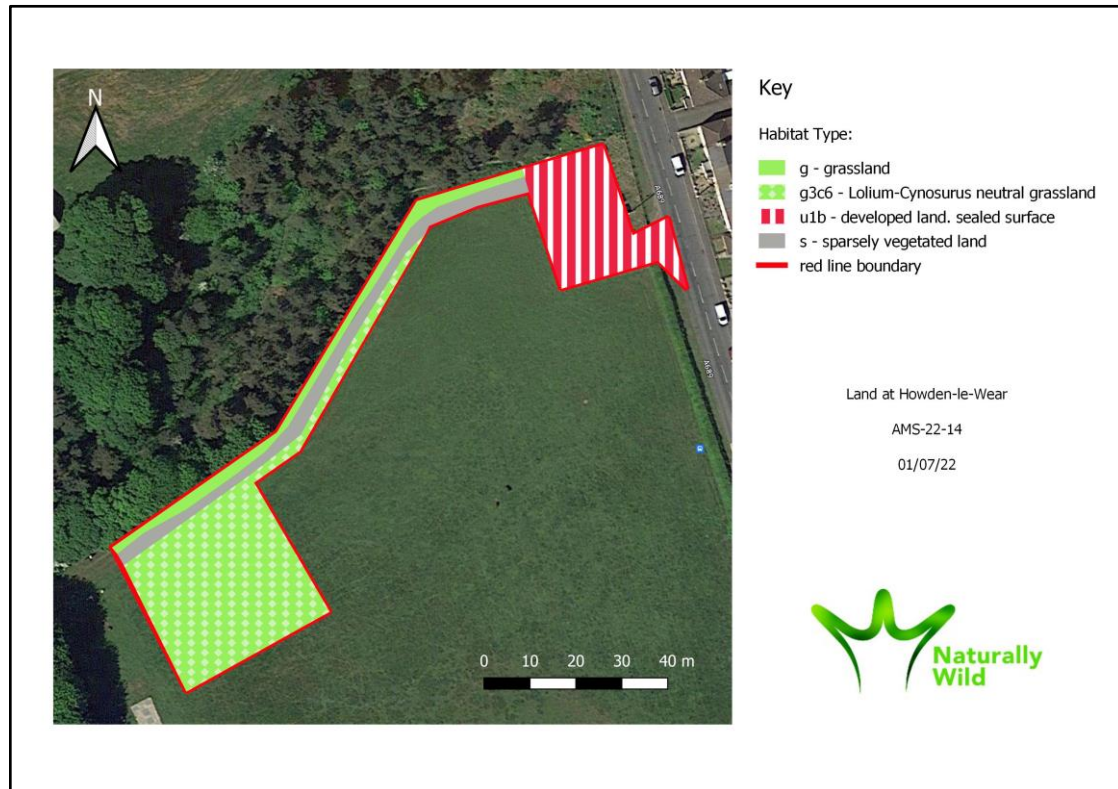


Figure 4. UKHabs habitat map.

4.2.2 Off-Site Ecological Features

An area of broadleaved and coniferous woodland directly borders the northern and western aspects of the site. Both coniferous and broadleaved deciduous woodland are UK BAP priority habitats and provide suitable foraging and nesting habitat for a range of mammal, bat, and bird species. As this habitat directly borders the proposed development site, suitable mitigation measures are needed to reduce any impacts to the wildlife within this area. Assuming all mitigation considerations have been met, the impacts to this area are expected to be negligible. See section 5.2 for further details on mitigation methods.

Beechburn beck is located within the woodland area to the western aspect. Becks provide suitable foraging and burrowing habitat for a range of species including Eurasian otter and European water vole, as well as providing suitable foraging habitat for bats. Due to the beck lying outside of the red line boundary, with forest acting as a buffer between the beck and the site, and impacts on this habitat from the proposed development are expected to be negligible.

The wider area is comprised mainly of agricultural and residential land with associated ornamental gardens, which is of overall low ecological value due to the lack of suitable foraging, nesting, and feeding habitat for a variety of mammals, birds, and bats. Impacts to this area is expected to be negligible, due to the small-scale nature of the proposed works, which will be confined to the red line boundary.

4.3 Protected Species

4.3.1 Badgers

The site was assessed to be of negligible value for badger sett creation. The high distinctiveness grassland present could be used as a transient foraging habitat; however no evidence of badgers was found during the site visit, which would include fur, snuffle holes and latrines. No EPSL badger license applications were found within 1km of the proposed site, following a search on MAGIC database. The impact of the proposed works on badgers in the absence of mitigation is expected to be negligible.

4.3.2 Bats

No EPSL bat licenses were found to be present within 1km of the proposed site, following a search on the MAGIC database. No suitable structures were present that could provide PRF's, as the area was flat grassland and hardstanding and therefore roosting suitability is negligible for this area. The area of grassland could be considered suitable for foraging bats, but as the area of grassland affected is a small portion of the overall area, impacts to the overall value for foraging is expected to be low. The area of woodland to the northern and western aspect of site could provide suitable roosting and foraging habitat for bats, however as this area is outside of the red line boundary, any impacts of the proposed development on bats is considered to be negligible.

4.3.3 Great Crested Newts

No EPSL great crested newt licenses were found to be present within 1km of the proposed site, following a search on the MAGIC database. No ponds were located on the development site. A pond is located approximately 336m northwest of the proposed site, however as it was located on private land it was inaccessible during the site walkover and cannot be assessed for GCN suitability using the HSI. A road and beck provide a buffer between the site and the pond however, and therefore the impacts to GCN from the proposed works is expected to be negligible.

4.3.4 Nesting Birds

Due to the lack of elevated structures on the proposed development site, no bird nests were observed on the proposed development site. The areas of grassland could provide suitable nesting habitat for ground nesting birds; however none were observed on site. Goldcrest (*Regulus regulus*), great spotted woodpecker (*Dendrocopos major*), chiffchaff (*Phylloscopus collybita*), blackcap (*Sylvia atricapilla*), song thrush (*Turdus philomelos*), and wren (*Troglodytes troglodytes*) were all observed in song, with swift (*Apus apus*) and sparrow hawk (*Accipiter nisus*) was observed flying overhead. Due to the grassland present on site providing suitable nesting habitat, the area is considered to be of moderate suitability for ground nesting birds. In the absence of mitigation, the proposed works will likely have a moderate impact on ground nesting birds. Mitigation provided in section 5.2.

4.3.5 Reptiles

No EPSL license applications were found for reptiles within a 1km buffer, following a search on MAGIC database. Some suitable reptile refugia was present on site, in the form of a pile of stacked logs, which can provide suitable foraging, burrowing and basking areas for reptiles (Image 6). No evidence of any reptiles was observed including shed skin or droppings. As the area of refugia was small and transient in

nature, with no evidence of use, the site was assessed to be of negligible value to reptiles. Proceeding with works, in the absence of mitigation, will likely have a negligible impact on local reptile populations.

4.3.6 Other Wildlife

Mammal tracks were observed in the grassland area bordering the northern aspect of site, leading to the area of woodland to the north. Rabbit (*Oryctolagus cuniculus*) droppings were observed along this area, suggesting the presence of rabbits using the area as foraging habitat. In addition to this, various invertebrate species were observed on the site, including meadow brown butterfly (*Maniola jurtina*), ringlet butterfly (*Aphantopus hyperantus*), bumblebee sp., meadow grasshopper (*Pseudochorthippus parallelus*), and blue damselfly (*Enallagma cyathigerum*). Notwithstanding the above, assuming the proposed works are confined to the red line boundary, the impacts to local rabbit and invertebrate communities is considered to be negligible.

4.4 Invasive Species

Himalayan balsam (*Impatiens glandulifera*), a species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were recorded within the site extent at the time of the site survey, and within habitats adjacent to the site. See the site plan below for the areas of distribution of this species.



Figure 5. Area of Himalayan balsam (blue area) within and around the red line boundary of the proposed development site.

4.5 Biodiversity Baseline Calculation

A biodiversity baseline calculation was carried out using the BNG metric 3.1 tool. A 100% net loss to the current habitat was found with no mitigation, with 1.97 units currently on site.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Overall, the site was considered to be of low ecological value, with some habitat for nesting birds in the form of grassland. Following the site assessment and in review of the findings, the following measures are considered to be required to be incorporated into the works:

5.2 Mitigation Measures

- Due to the suitability of grassland areas to support nesting birds, clearance works should be carried out outside of the nesting season, which is defined as running from March to August, inclusive. If this is not feasible for any reason, a nesting bird survey must be carried out by a suitably qualified ecologist shortly prior to the start of works to ensure no active nests are present. In the event that any active nests are found during this survey or at any point during the works, a suitable exclusion zone should be put around the nest, with no work taking place in this area until such time as the nest can be confirmed as no longer active.
- Any excavations should be covered at night to prevent wildlife becoming trapped, if feasible. If this is not feasible, a suitable means of egress such as a plank of wood at 45° (max.) should be provided
- To prevent a further reduction in ecological connectivity resulting from the development, any fenced boundaries are to be gapped, with a 13 x 13 cm hole cut at ground level to allow small mammals to access and egress gardens.
- Works should be carried out in a precautionary manner in relation to the Himalayan balsam present on site, with care taken not disturb the Himalayan balsam, which could potentially result in its distribution to the wider surrounding habitats. If this plant is to be disturbed during development works it should be removed following best practice bio-security protocol, by which the plant is cut to ground level, and the stump treated with glyphosate. Any cuttings should be sent to a landfill licensed to receive invasive plant material.
- A sensitive lighting scheme should be implemented during and after construction to avoid indirect disturbance to foraging and commuting bats, birds and small mammals that may be using the woodland areas to the north and west, and should include the following elements:
 - Sensitive positioning of lighting to avoid unnecessary spill onto woodland, and any habitat enhancement features to be incorporated into the (re-)development (see below);
 - Angle of lighting: avoidance of direct lighting and light spill onto areas of habitat that are of importance as commuting pathways and/or foraging areas;
 - Type of lighting: studies have shown that light sources emitting higher amounts of UV light have a greater impact to wildlife. Use of narrow-spectrum bulbs that avoid white and blue wavelengths are likely to reduce the number of species impacted by the lighting;
 - Reduce the height of lighting columns to avoid unnecessary light spill.

5.4 Enhancement Measures

- Any landscape planting should use native plant species and/or species of known wildlife value that will enhance the ecological value of the site for local populations of invertebrates, birds, bats and small mammals.

- A series of invertebrate hibernacula should be installed at suitable locations on site post-development.
- A series of bird and bat boxes should be incorporated into the development to provide enhanced roosting and nesting habitat.

This report should be reviewed and amended, as necessary, upon finalised development plans being produced, to ensure that further survey effort and mitigation measures are appropriate to the scale and nature of the works.

Providing the recommendations of this report are implemented in full, Naturally Wild would conclude that there will not be a significant impact to protected species or habitats as a result of the proposed works.

6 SITE IMAGES



Image 1. The path from the eastern aspect carpark area.



Image 2. The path and grassland areas from the centre of the proposed development site, facing west.



Image 3. Grassland G2 from the northern aspect.

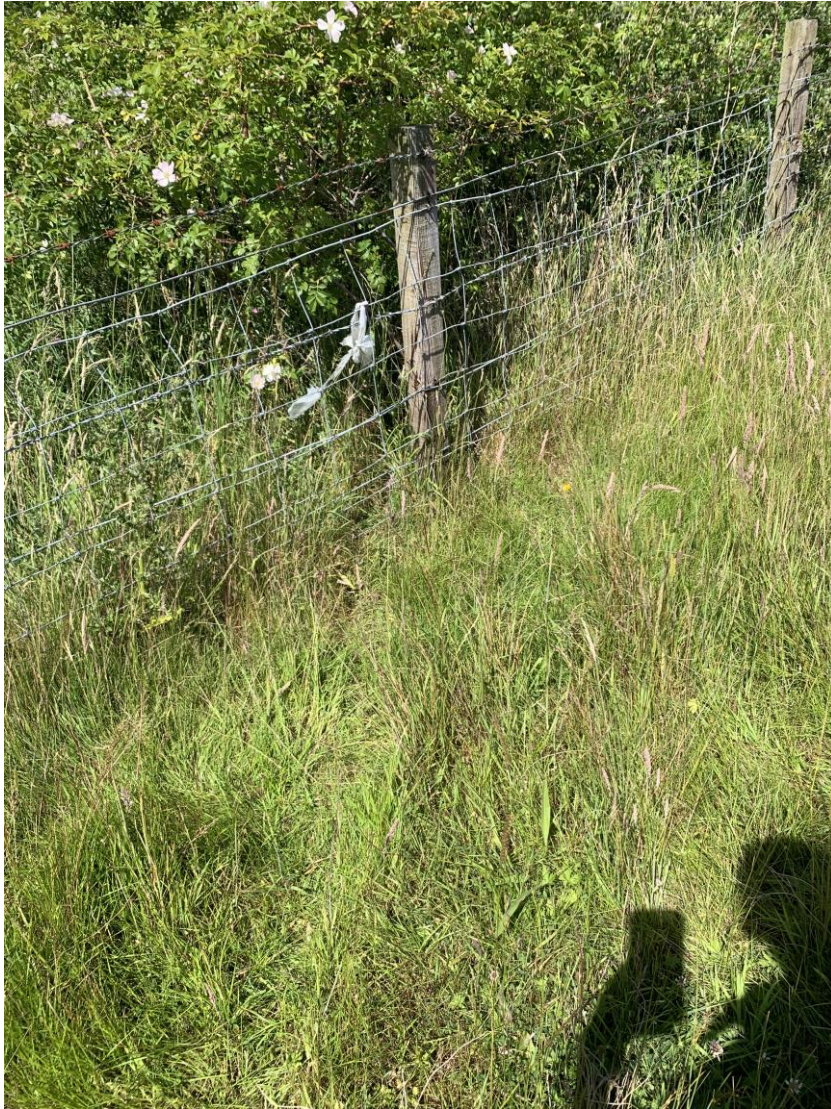


Image 4. Grassland G1 bordering the woodland area.



Image 5. Path and grassland G1 facing the carpark to the eastern aspect.



Image 6. Suitable reptile refugia along grassland G1.



Image 7. Grassland G2

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8 APPENDICES

8.1 Additional Information for the Legislation of Other Protected Species

Badgers: The badger is geographically widespread across the UK; however, they are still vulnerable to baiting, hunting and detrimental impacts of development to their habitat. Both the badger and its habitat are protected under The Protection of Badgers Act 1992, Schedule 6 of the Wildlife and Countryside Act 1981 (as amended) an Appendix Three of the Bern Convention; therefore, badgers have legal protection against deliberate harm or injury and it is an offence to:

- Interfere with a badger sett by damaging or destroying it
- Kill, injure, take or possess a badger
- Cruelly ill-treat a badger
- Obstruct access to a badger sett
- Disturb a badger whilst it is in a badger sett

Bats: All British bat species are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are therefore afforded protection under Section 9 of this Act. In addition, all bat species are listed in Schedule 2 of The Conservation of Habitats and Species Regulations and are protected under Regulation 39 of the Regulations. These Regulations make provision for the purpose of implementing European Union Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora 1992, under which bats are included on Annex IV. The Act and Regulations makes it an offence, *inter alia*, to:

- Intentionally kill, injure, take (handle) or capture a bat;
- Intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not) - under the Habitats Regulations it is an offence to damage or destroy a breeding site or resting place of any bat; or
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection - under the Habitats Regulations it is an offence to deliberately disturb a bat (this applies anywhere, not just at its roost) in such a way as to be likely to affect its ability to survive, breed, reproduce, rear or nurture their young or hibernate.

Further details of the above legislation, and of the roles and responsibilities of developers and planners in relation to bats, can be found in Natural England's Bat Mitigation Guidelines (Mitchell-Jones, 2004).

Great Crested Newts: Great crested newts are protected under Schedule 2 of The Conservation of Habitats and Species Regulations. This species is also afforded full protection under the Schedule 5 of the Wildlife and Countryside Act 1981. Under such legislation it is an offence to:

- Intentionally or recklessly* kill, injure or capture a great crested newt;
- Possess or control any live or dead specimen or anything derived from a great crested newt;
- Intentionally or recklessly* damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt; and
- Intentionally or recklessly* disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.
- Damage or destroy a breeding site or resting place.
- Sell, barter, exchange or transport or offer for sale great crested newts or parts of them.

**Reckless offences were added by the Countryside and Rights of Way Act 2000, which applies only to England and Wales.*

To undertake surveys for great crested newts it is necessary to hold an appropriate licence issued by Natural England.

Nesting Birds: Birds receive protection under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally or recklessly kill, injure or take any wild bird; take, damage or destroy a nest of a wild bird whilst it is in use or being built; or to take, damage or destroy an egg of a wild bird. The bird-nesting season is defined as being from 1st March until 31st August with exceptions and alterations for some species.

Reptiles: All native British species of reptile (of which there are six) are listed on Schedule 5 of the Wildlife and Countryside Act 1981 and, as such, are protected from deliberate killing, injury or trade; therefore, where development is permitted and there will be a significant change in land use, a reasonable effort must be undertaken to remove reptiles off site to avoid committing an offence. The same Act makes the trading of native reptile species a criminal offence without an appropriate licence.

8.4 Biodiversity Baseline Calculation Results

Headline Results		Return to results menu
On-site baseline	Habitat units	1.97
	Hedgerow units	0.00
	River units	0.00
On-site post-intervention <small>(Including habitat retention, creation & enhancement)</small>	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
On-site net % change <small>(Including habitat retention, creation & enhancement)</small>	Habitat units	0.00%
	Hedgerow units	0.00%
	River units	0.00%
Off-site baseline	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention <small>(Including habitat retention, creation & enhancement)</small>	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change <small>(including all on-site & off-site habitat retention, creation & enhancement)</small>	Habitat units	-1.97
	Hedgerow units	0.00
	River units	0.00
Total on-site net % change plus off-site surplus <small>(including all on-site & off-site habitat retention, creation & enhancement)</small>	Habitat units	-100.00%
	Hedgerow units	0.00%
	River units	0.00%
Trading rules Satisfied?	No - Check Trading Summary ▲	

Figure 6. Biodiversity baseline calculation output.