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## ENVIRONMENTAL PLANNING

Avant Homes (Yorkshire) Ltd

# Hawshaw Lane, Hoyland
# LDP2129
# Preliminary Ecological Appraisal

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# Hawshaw Lane, Hoyland
# LDP2129
# Preliminary Ecological Appraisal

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## Notice

# EXECUTIVE SUMMARY

BWB Consulting Ltd (BWB) was instructed by Avant Homes (Yorkshire) Ltd (the Client) to carry out a Preliminary Ecological Appraisal at Hawshaw Lane, Hoyland (the Site).

| Ecological Receptor | Results & Discussion | Recommendations |
|---|---|---|
| Designated Sites | As a result of the distance of the Site from any designations and the nature of the works, no direct or indirect impacts are envisaged to any designated wildlife sites.<br>However, the Site is within the Dearne Valley Green Heart Nature Improvement Area and as such it is a requirement that Biological Enhancements over and above the normal level of mitigation is required. | A Biodiversity Enhancement Plan to further increase the value of the Site should be produced to include the provisions of bat and bird boxes, insect hotels and hedgehog boxes; if reasonably practicable within the site masterplan, a grassland management plan should be considered for areas of retained grassland. |
| Habitats | The habitats on-site were generally considered to be of low-ecological value comprising improved grassland.<br>The majority of hedgerows would not qualify as 'Important' under the Hedgerow Regulations 1997 due to a lack of species diversity; Boundary 3 is sufficiently species diverse but would not qualify due to a lack of additional qualifying features. However, the boundary hedgerows offered the best opportunities for biodiversity and would qualify as Priority Habitats as they comprised over 80% native species.<br>Identified to the north of the site near to the pumping station was Japanese knotweed (Fallopia japonica). | Boundary habitats should be retained and adequately protected during the works i.e. root protection zones should be demarcated and observed.<br>Suitable control measures to manage and eradicate Japanese knotweed (Fallopia japonica) will be implemented. |
| Amphibians | There was a single (off-site) pond within 500m of the Site. However, an eDNA survey confirmed a likely absence of GCN. No impacts to GCN are envisaged. | Not Applicable |
| Badgers and Hedgehogs | No evidence of badgers or hedgehogs was found on-site but it cannot be ruled out that they may cross the Site periodically. | As a matter of good practice, any trenches dug as part of construction work should be covered over at night, or left with a ramp or sloping end, to prevent mammals from falling in and becoming trapped. Similarly, any pipes over 200mm in diameter should be capped off at night. |

| Ecological Receptor | Results & Discussion | Recommendations |
|---|---|---|
| Bats | No potential roosting features were observed on-site.<br>The habitats on-site were largely sub-optimal to support foraging bats comprising intensively managed arable land. The boundary hedgerows offered the best opportunities to support foraging and commuting bats. | Boundary habitats should be retained and protected as detailed above as these provide the best opportunities for foraging and commuting bats. Illumination of these features should be avoided to maintain a dark corridor for foraging and commuting bats. |
| Birds | An important assemblage of bird species was considered unlikely to be present on-site. However, all bird species receive legal protection during nesting; there is the potential for any vegetation clearance to damage or destroy active nests, if undertaken during the nesting season. | Boundary habitats should be retained and protected as these provide the best opportunities for nesting birds.<br>As all species receive legal protection during nesting, it is advised to complete any vegetation clearance and building works outside of the breeding bird season of March to August (inclusive). Vegetation clearance outside of this period should still be preceded by a nesting bird carried out by contractors, as some species can nest all year round. Any active nests would need to remain unaffected until all chicks had fledged. |

# CONTENTS

## APPENDICES

# 1.0 INTRODUCTION

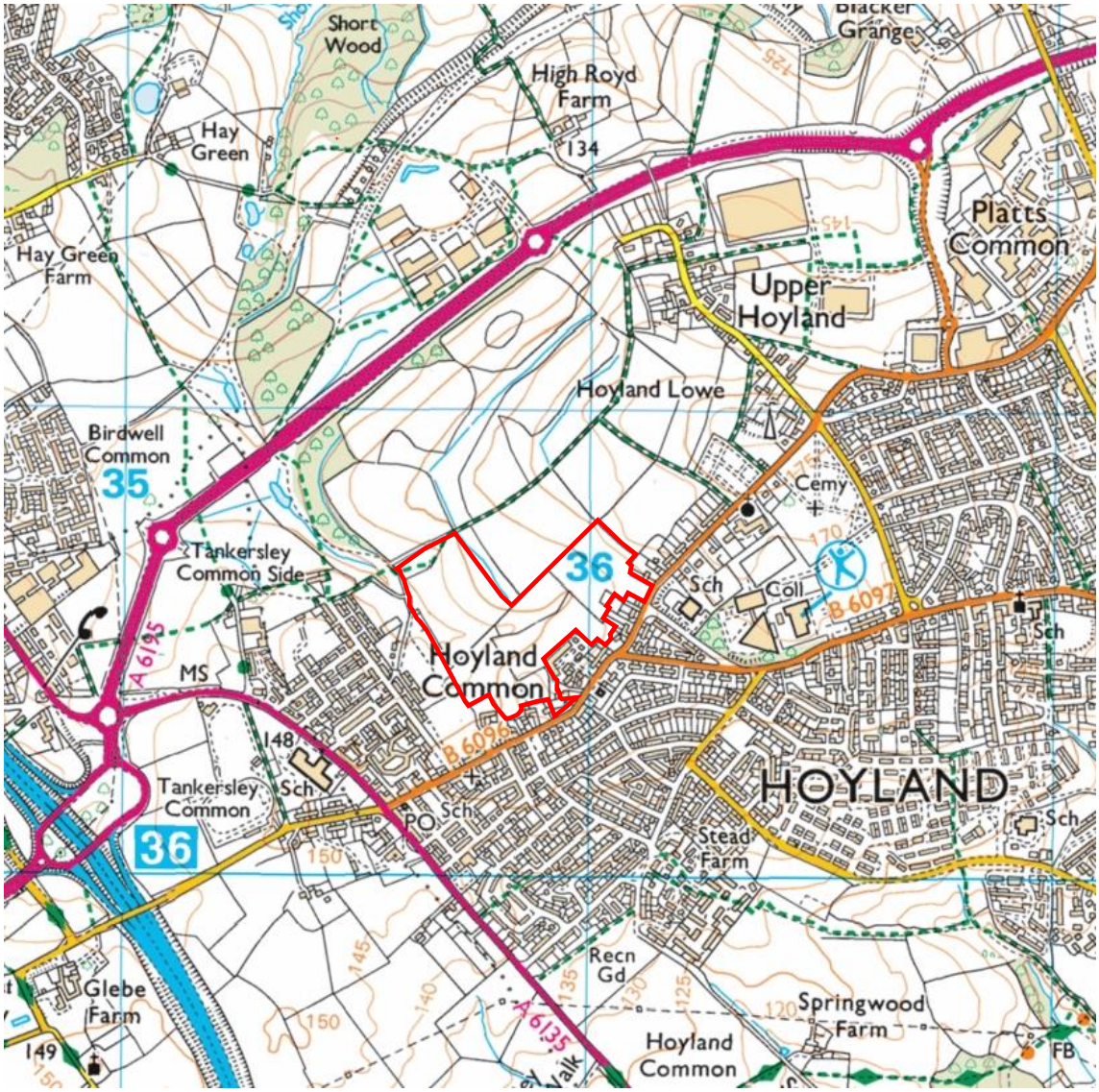
## Instruction

1.1 BWB Consulting (BWB) was instructed by Avant Homes (Yorkshire) Ltd (the Client) to carry out a Preliminary Ecological Appraisal on land at Hawshaw Lane, Hoyland (the Site). This is to support the detailed application for a scheme comprising 100 residential untis, associated access, infrastructure and landscaping.

## Site Location

1.2 The Site is located off Hawshaw Lane at National Grid reference SE3582200450. The location of the Site is shown in **Figure 1**.

**Figure 1: Site Location Plan**



## Aims

1.3 The primary purpose of this appraisal is to provide a baseline of all ecological considerations relating to any future development proposals. This will include the identification of any potential ecological constraints.

## Scope of Works

1.4 The ecological appraisal was informed by a desk-based study and a site survey completed on 15th May 2018. The approach to this ecological appraisal follows best practice published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017) and the British Standards Institution (BSI, 2013). Further details are provided later in this report.

## Legislation and Planning Policy

1.5 The following legislation relates to species and habitats that could potentially occur in association with the Site:

- The Conservation of Habitats and Species Regulations 2017;
- The Wildlife and Countryside Act 1981 (as amended);
- The Countryside and Rights of Way (CRoW) Act 2000;
- Natural Environment and Rural Communities (NERC) Act 2006;
- The Protection of Badgers Act 1992;
- Wild Mammals (Protection) Act 1996; and
- The Hedgerow Regulations 1997.

1.6 Further information on the legislation relevant to this Site is provided in **Appendix 1**.

1.7 Consideration has also been given in this report to relevant National and Local Planning Policy as summarised below.

1.8 The National Planning Policy Framework (NPPF) guides Local Planning Authorities (LPAs) when developing their planning policies and considering planning applications affecting protected habitats, sites and species.

1.9 In respect of the natural environment, the NPPF states that "… the planning system should contribute to and enhance the natural and local environment by:

- *protecting and enhancing valued landscapes, geological conservation interests and soils;*
- *recognising the wider benefits of ecosystems services; and*
- *minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures …*"

1.10 Through the NPPF and Section 40 of the NERC Act, LPAs have a duty to consider habitats and species listed as being of principal importance for nature conservation in England on Section 41 (S41) of the Act when considering a planning application. In addition, the biodiversity duty of local planning authorities also covers species and habitats listed in local biodiversity action plans.

1.11 Additionally, Barnsley Metropolitan Borough Council are currently preparing a Local Plan which will replace the Core Strategy and the Unitary Development Plan (UDP). However, the existing UDP remains in place until this new plan is adopted, the following policies relating to Nature Conservation:

*Policy GS15*

*The council will seek to safeguard important habitats and species from any activities which would cause disturbance, pollution or other damage. All development proposals should, where appropriate, include measures to conserve and enhance existing features of nature conservation interest and to create new nature conservation areas.*

*Policy GS16*

*Development likely to have an adverse effect, either directly or indirectly, on the conservation value of a national nature reserve or site of special scientific interest or any habitat or species protected by law, will only be permitted if it can be demonstrated that other material considerations outweigh the special interest of the site.*

*Policy GS17*

*Sites which are designated as or potential Ramsar sites, special protection areas, or special areas of conservation will be given the protection afforded to sites of special scientific interest. In addition, development proposals will be allowed only if there is no alternative solution and if there are imperative reasons of overriding public interest for them. Where such sites host a priority habitat or species (as listed in the EC Habitats Directive) development should only proceed if required for reasons of human health or public safety.*

*Policy GS18*

*Any development which may adversely affect, directly or indirectly, a local nature reserve, a natural heritage site, ancient woodland, a regionally important geological site or other nature conservation sites identified on the proposals maps, will not be approved unless it can be clearly demonstrated that there is a case for the development which outweighs the case for safeguarding the conservation interest of the site after available measures to avoid, mitigate or compensate for any adverse effects have been taken into account, in which case the council will seek to minimise the adverse impact and/or secure compensatory provision including, where appropriate, through planning conditions or obligations*

*Policy GS20*

*Development will not normally be permitted which may destroy or adversely affect the integrity of wildlife corridors.*

*Enhancing areas of nature conservation interest*

*Policy GS21*

*The council will seek to increase the number and quality of areas of nature conservation interest available for educational and general public enjoyment, while minimising detrimental effects and protecting sites from any potential damage.*

*Woodland Hedgerows & Trees*

*Policy GS22*

*The council will seek the retention and management of existing hedgerows, woodlands and trees both individually and in groups.*

*Policy GS23*

*The council will actively support the development of extensive new woodland and hedgerow planting and its appropriate management for landscape, ecological, recreation and ultimately economic benefit.*

*Policy GS24*

*The council will support the creation of the South Yorkshire Forest. Any development within the forest area must accord with the policies of this UDP and developers will be encouraged to make a positive contribution to the forest.*

# 2.0 METHODS

## Desktop Study

2.1 Sheffield Biological Records Centre was contacted to request records of any locally designated sites and/or protected species from the Site and land within a 2km radius. Records more than ten years old have been largely disregarded.

2.2 The Preliminary Ecological Appraisal covering the Site conducted in relation to the previous planning application was also available for review (Envirotech, 2016).

2.3 In addition, the data sources listed below were also searched to gather additional ecological data of relevance to the project, including the identification of non-designated ecologically sensitive habitats such as vegetation corridors, woodlands, watercourses and standing water.

- Multi-Agency Geographic Information for the Countryside (MAGIC);
- Ordnance Survey 1:25,000 mapping; and
- Aerial imagery (Google – imagery dated 2016).

## Extended Phase 1 Habitat Survey

2.4 A site survey was undertaken on 15th May 2018 by Chris Grocock MSc BSc (Hons) GradCIEEM. Chris has extensive experience in survey and site assessment for protected species and is appropriately qualified for the surveys based on the CIEEM competencies for species surveys (CIEEM, 2017). Chris is registered to use a Natural England Class Licence for bats (2016-24827-CLS-CLS).

2.5 The visit was completed using Phase 1 habitat survey techniques as defined in the standard methodology (JNCC, 2010).

2.6 The aim of the visit was to gather sufficient baseline information on the habitats within the Site in order to allow an interpretation of the ecological value of the land.

2.7 In addition, the methodology was extended to include a search for incidental evidence of protected / notable fauna and an assessment of the Site's potential to support protected/notable fauna. Specific consideration was given to the following species:

- Birds;
- Bats;
- Amphibians, including great crested newt (GCN) *Triturus cristatus*;
- Reptiles;
- Badgers *Meles meles*; and
- Priority Species, such as hedgehog *Erinaceus europaeus*.

2.8 Standard methodologies were used where applicable.

2.9 Habitats adjacent to the Site were viewed, where possible, from the Site boundaries in order to assess their potential to support protected species that could be utilising the survey Site.

### Survey Comments

2.10 Several areas were not accessible at the time of survey as they were located within residential properties and gardens. These are highlighted on the Extended Phase 1 Habitat Map. However, as they comprised residential gardens they are unlikely to pose a constraint to the development.

2.11 The survey methodology highlights habitats and features with potential for protected/notable species but is not designed to provide a comprehensive presence/absence survey. Any species-specific surveys recommended as a result of this appraisal must be read in conjunction with this report to gain a full understanding of potential ecological constraints to the development.

2.12 In line with standard guidance, the results and recommendations within this report are valid for up to two years from the date of survey, assuming there are no significant changes to the survey Site or its immediate surroundings. Updated survey work may be required to support any future planning applications outside of this time period.

### Great Crested Newt eDNA Survey

2.13 A single pond was identified within 500m of the Site. A site visit was conducted by licenced ecologist Gemma Longman BSc (Hons) ACIEEM on the 28th June 2018 assisted by a field ecologist for health and safety purposed to conduct presence/absence surveys utilising eDNA. The pond surveyed is indicated in Figure 2.

**Figure 2: Pond Location**

2.14 Water samples were taken from the pond as outlined below:

- 20 sampling sites were identified around the perimeter of the pond spaced as evenly as possible and including vegetative areas and areas likely to contain great crested newts;
- Wearing sterile gloves, 20 samples were taken using a plastic ladle from at least 10cm deep areas of water ensuring the sediment at the bottom of the pond was not disturbed;
- Each ladle full of water was transferred to the Whirlpak bag provided and mixed thoroughly (shaken);
- 15ml of the water from the Whirlpak bag was transferred to each of the preservative filled sample tubes using a sterile pipette and shaken vigorously;

2.15 The samples were taken immediately from the site to the SureScreen Scientifics Laboratory in Derbyshire where they were analysed.

# 3.0 RESULTS

## Designated Sites

3.1 One Statutory Site was present within 2km of the Site; Potter Holes Plantation is a Local Nature Reserve approximately 1.4km west of the Site comprising semi-ancient woodland developed in and around old bell-pits, plus newer, planted woodland adjacent on a reclaimed colliery site.

3.2 The Site is not within a Site of Special Scientific Interest Risk Zone and the nearest Natura 2000 site, the Peak District Dales, is 14km to the West of the Site.

3.3 A desk-based search shows that there are several Local Wildlife Sites within 2km of the Site, the closest being Short Wood and Hay Green Local Wildlife Site (LWS) approximately 0.95m north of the Site.

3.4 The Site is within the Dearne Valley Green Heart Nature Improvement Area.

## Habitats and Botanical Species

3.5 The Extended Phase 1 Habitat Survey Results Map is provided in Appendix 2 with accompanying habitat descriptions below. Relevant photographs are shown in Appendix 3. Botanical species nomenclature follows Stace (2010).

3.6 The majority of the Site comprised horse grazed or cow grazed improved grassland with a short sward height and few herbaceous species. Species recorded were perennial rye-grass *Lolium perenne*, cock's-foot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus*, dandelion *Taraxacum officinale* agg., creeping thistle *Cirsium arvense*, white clover *Trifolium repens*, creeping buttercup *Ranunculus repens* and red clover *Trifolium pratense*. Additionally. there were some areas of scattered scrub towards the south of the Site and along boundary fences including bramble and hawthorn.

## Boundaries

3.7 Physical boundary features, where present, comprised hedgerows or garden fences as listed in Table 1. There were no distinct field margins but most of the hedgerows, and fences, had associated tall ruderal growth. Tall ruderals were also present in two small stands as mapped in Appendix 2 dominated by common nettle *Urtica dioica*. Boundary numbers refer to the Phase 1 Habitat Map in Appendix 2.

**Table 1: Boundary Features**

| Boundary | Description |
|---|---|
| B1 | A hawthorn dominated *Crataegus monogyna* dominated hedgerow with some elder *Sambucus nigra*.<br>Associated ground flora recorded comprised common nettle and broad-leaved dock *Rumex obtusifolius*. |
| B2 | Hawthorn dominated hedgerow with elder, blackthorn *Prunus spinosa*, holly *Ilex aquifolium* and bramble *Rubus fruticosus*.<br>Associated ground flora recorded comprised common nettle and cleavers *Galium aparine*. |
| B3 | Hawthorn dominated hedgerow with field maple *Acer campestre*, ash *Fraxinus excelsior*, elder and dog rose *Rosa canina*.<br>Associated ground flora recorded comprised common nettle and cleavers *Galium aparine*. |
| B4 | Hawthorn and holly hedgerow with some ash.<br>Associated ground flora recorded comprised common nettle, rosebay willowherb *Epilobium angustifolium* and teasel *Dipsacus fullonum*. |
| B5 | Hawthorn dominated hedgerow with some holly.<br>Associated ground flora recorded comprised common nettle, rosebay willowherb *Epilobium angustifolium* and teasel *Dipsacus fullonum*.<br>To the immediate north of the B5 was a block of plantation broadleaved woodland. |
| B6 | Hawthorn, blackthorn and holly hedgerow.<br>Associated ground flora recorded comprised common nettle, cow parsley *Anthriscus sylvestris* and creeping thistle *Cirsium arvense*. |
| B7 | Grown out hedgerow with species present including hawthorn, elder, beech and holly.<br>Associated ground flora recorded comprised creeping thistle and foxglove *Digitalis* sp. |

## Protected / Notable Species

### Amphibians

3.8 The Site provided some areas of suitable terrestrial habitat for great crested newts (GCN) *Triturus cristatus* within boundary habitats and areas of tall ruderal.

3.9 A search of OS maps and aerial photography highlighted the presence of one waterbody within 500m of the Site, approximately 450m north of the Site. It was therefore considered a possibility that GCN could utilise habitats on-site.

3.10 However, the presence/absence eDNA survey returned a negative result. The laboratory results letter is shown in Appendix 4.

3.11 GCN were considered highly unlikely to be present on-site and are not considered further within this report.

## Badgers

3.12 No evidence of badgers was found on-site such as hairs, latrines, footprints or setts. The habitats did provide suitable foraging habitat for badgers and it cannot be ruled out that they may cross the Site periodically. There were no desk study records of this species.

## Bats

3.13 No features potentially suitable to support roosting bats were observed on-site including within mature trees; there were several timber sheds which were inspected and classified as having negligible potential to support roosting bats. The habitats on-site were largely sub-optimal to support foraging bats comprising improved grassland. The boundary hedgerows offered the best opportunities to support foraging and commuting bats. The block of plantation woodland to the immediate north of the Site also offered opportunities for foraging bats.

3.14 Transect surveys conducted as part of the previous application detected very low levels of bat activity. There were several desk study records of bats listed in Table 2 (a total of nine individual records). No records originated from the Site itself.

**Table 2: Desk Study Records of Bats**

| Taxon Name | Common Name |
|---|---|
| *Nyctalus noctula* | Noctule Bat |
| *Nyctalus leisleri* | Leisler's Bat |
| *Pipistrellus* | Pipistrelle Bat species |
| *Plecotus auritus* | BLE |

## Birds

3.15 Birds recorded during the survey were greenfinch *Chloris chloris* and wren *Troglodytes troglodytes,* both of which are listed as Green on the Birds of Conservation List.

3.16 The Site offered some potential for foraging and nesting opportunities primarily within the hedgerows, although the Site was unlikely to support an important assemblage of birds.

3.17 There were numerous desk study records of protected/notable bird species within 2km of the Site as listed in Table 4. However, none of these originated from the Site itself and were largely associated with Short Wood and Hay Green LWS.

**Table 3: Desk Study Records of Birds**

| Taxon Name | Common Name |
|---|---|
| *Tyto alba* | Barn Owl |
| *Pyrrhula pyrrhula* | Bullfinch |
| *Cuculus canorus* | Cuckoo |

| Taxon Name | Common Name |
|---|---|
| *Prunella modularis* | Dunnock |
| *Turdus pilaris* | Fieldfare |
| *Regulus regulus* | Goldcrest |
| *Pluvialis apricaria* | Golden Plover |
| *Pluvialis apricaria* | Golden Plover |
| *Accipiter gentilis* | Goshawk |
| *Locustella naevia* | Grasshopper Warbler |
| *Picus viridis* | Green Woodpecker |
| *Perdix perdix* | Grey Partridge |
| *Coccothraustes coccothraustes* | Hawfinch |
| *Delichon urbicum* | House Martin |
| *Passer domesticus* | House Sparrow |
| *Falco tinnunculus* | Kestrel |
| *Vanellus vanellus* | Lapwing |
| *Dendrocopos minor* | Lesser Spotted Woodpecker |
| *Anthus pratensis* | Meadow Pipit |
| *Turdus viscivorus* | Mistle Thrush |
| *Falco peregrinus* | Peregrine |
| *Anser brachyrhynchus* | Pink-footed Goose |
| *Coturnix coturnix* | Quail |
| *Milvus milvus* | Red Kite |
| *Turdus iliacus* | Redwing |
| *Emberiza schoeniclus* | Reed Bunting |
| *Charadrius hiaticula* | Ringed Plover |
| *Alauda arvensis* | Skylark |
| *Gallinago gallinago* | Snipe |
| *Turdus philomelos* | Song Thrush |
| *Sturnus vulgaris* | Starling |
| *Columba oenas* | Stock Dove |
| *Hirundo rustica* | Swallow |

| Taxon Name | Common Name |
|---|---|
| *Anas crecca* | Teal |
| *Passer montanus* | Tree Sparrow |
| *Rallus aquaticus* | Water Rail |
| *Anas penelope* | Wigeon |
| *Phylloscopus trochilus* | Willow Warbler |
| *Phylloscopus trochilus* | Willow Warbler |
| *Scolopax rusticola* | Woodcock |
| *Motacilla flava* | Yellow Wagtail |
| *Emberiza citrinella* | Yellowhammer |

## Reptiles

3.18 No reptiles or evidence of reptiles was recorded on-site. The habitats were sub-optimal to support reptiles comprising grazed pasture lacking in heterogeneity, suitable refugia or hibernacula.

3.19 There were several desk study records of grass snake *Natrix natrix* and adder *Vipera berus*. However, the closest record was approximately 0.85km north of the Site.

3.20 Reptiles were considered highly unlikely to be present on-site and are not considered further within this report.

## Other Species

3.21 The site was potentially suitable to support brown hare; however, surveys conducted in relation to the previous application did not find this species on-site or in the wider area. The Site was considered suitable to support hedgehogs which may pass through periodically. The site was considered unlikely to support any other protected species.

## Invasive Weeds

3.22 During the site visit undertaken Japanese knotweed (*Fallopia japonica*) was identified to the north of the site near to the pumping station. This species is listed on Schedule 9 of the Wildlife and Countryside Act (1981, as amended), making it an offence to plant or allow this species to grow in the wild.

# 4.0 DISCUSSION AND ANALYSIS OF RESULTS

### Designated Sites

4.1 As a result of the distance of the Site from any designations and the nature of the works, no direct or indirect impacts are envisaged to any designated wildlife sites.

4.2 However, the Site is within the Dearne Valley Green Heart Nature Improvement Area and as such it is a requirement that Biological Enhancements over and above the normal level of mitigation is required.

### Habitats

4.3 The habitats on-site were generally considered to be of low-ecological value.

4.4 The majority of hedgerows would not qualify as 'Important' under the Hedgerow Regulations 1997 due to a lack of species diversity; Boundary 3 is sufficiently species diverse but would not qualify due to a lack of additional qualifying features. However, the boundary hedgerows offered the best opportunities for biodiversity and would qualify as Priority Habitats as they comprised over 80% native species. Hedgerows should therefore be retained and protected during the works as detailed in Section 5. This is also in line with UDP Policy GS22.

### Badgers

4.5 It cannot be ruled out that badgers may cross the Site periodically which have the potential to become trapped in open trenches or pipework if left uncovered overnight. Therefore, further consideration will be required as detailed in Section 5.

### Bats

4.6 No significant impacts to foraging bats are envisaged as a result of the loss of the majority of habitats on-site. However, there would be a potential loss in foraging and commuting habitat should hedgerows be removed. Additionally, any new lighting associated with the development has the potential to disturb foraging and commuting bats.

### Birds

4.7 No significant impacts to birds are envisaged as a result of the loss of the habitats present on-site. However, all bird species receive legal protection during nesting; there is the potential for any vegetation clearance to damage or destroy active nests, if undertaken during the nesting season. Sensitive timing of vegetation works will be needed. Further information is provided in Section 5.

### Hedgehogs

4.8 It cannot be ruled out that badgers may cross the Site periodically which have the potential to become trapped in open trenches or pipework if left uncovered overnight. Therefore, further consideration will be required as detailed in Section 5.

## Invasive Weeds

4.9 During the site visit undertaken Japanese knotweed (*Fallopia japonica*) was identified to the north of the site near to the pumping station. Suitable control measures will need to be put in place to eradicate the species from the site and prevent it from spreading.

# 6.0 RECOMMENDATIONS

### Designated Sites

6.1 As the Site is within the Dearne Valley Green Heart Nature Improvement Area, a Biodiversity Enhancement Plan to further increase the value of the Site should be produced to include the provisions of bat and bird boxes, insect hotels and hedgehog boxes; if reasonably practicable within the site masterplan, a grassland management plan should be considered for areas of retained grassland.

### Habitats

6.2 Boundary hedgerows should be retained and root protection zones observed during the works. Similarly, the adjacent woodland to the immediate north of the Site should also be protected during the works.

6.3 The NPPF states that the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity. Any new planting associated with the development should comprise predominantly native species, or those with a known biodiversity benefit (such as a high nectar yield).

### Badgers

6.4 As a matter of good practice, any trenches dug as part of construction work should be covered over at night, or left with a ramp or sloping end, to prevent mammals from falling in and becoming trapped. Similarly, any pipes over 200mm in diameter should be capped off at night.

### Bats

6.5 A dark corridor should be maintained along boundary hedgerows and adjacent woodland to reduce disturbance to commuting and foraging bats.

6.6 Opportunities for bats should be incorporated into the final masterplan. This could include integrated bat boxes on buildings, or attached to any trees included in the final masterplan.

### Birds

6.7 As all species receive legal protection during nesting, it is advised to complete any vegetation clearance and building works outside of the breeding bird season of March to August (inclusive). Vegetation clearance outside of this period should still be preceded by a nesting bird carried out by contractors, as some species can nest all year round. Any active nests would need to remain unaffected until all chicks had fledged.

6.8 Opportunities for nesting birds should be incorporated into the final masterplan. This could include integrated nest boxes on buildings, or attached to any trees included in the final masterplan.

### Hedgehogs

6.9 As a matter of good practice, any trenches dug as part of construction work should be covered over at night, or left with a ramp or sloping end, to prevent mammals from falling in and becoming trapped. Similarly, any pipes over 200mm in diameter should be capped off at night.

### Invasive Weeds

6.10 Suitable control plan will be implemented in areas where Japanese knotweed (Fallopia japonica) has been identified. A suitably qualified management company/ecologist will work to eradicate the species from the site.

6.11 Ongoing management of the species may be required in some areas due to the possible recolonization through the spread of seeds outside of the site boundary. The species will be controlled by spraying, which is known to be effective against small stands within grassland.

# 7.0 SUMMARY

| Ecological Receptor | Results & Discussion | Recommendations |
|---|---|---|
| Designated Sites | As a result of the distance of the Site from any designations and the nature of the works, no direct or indirect impacts are envisaged to any designated wildlife sites.<br>However, the Site is within the Dearne Valley Green Heart Nature Improvement Area and as such it is a requirement that Biological Enhancements over and above the normal level of mitigation is required. | A Biodiversity Enhancement Plan to further increase the value of the Site should be produced to include the provisions of bat and bird boxes, insect hotels and hedgehog boxes; if reasonably practicable within the site masterplan, a grassland management plan should be considered for areas of retained grassland. |
| Habitats | The habitats on-site were generally considered to be of low-ecological value comprising improved grassland.<br>The majority of hedgerows would not qualify as 'Important' under the Hedgerow Regulations 1997 due to a lack of species diversity; Boundary 3 is sufficiently species diverse but would not qualify due to a lack of additional qualifying features. However, the boundary hedgerows offered the best opportunities for biodiversity and would qualify as Priority Habitats as they comprised over 80% native species.<br>Identified to the north of the site near to the pumping station was Japanese knotweed (Fallopia japonica). | Boundary habitats should be retained and adequately protected during the works i.e. root protection zones should be demarcated and observed.<br>Suitable control measures to manage and eradicate Japanese knotweed (Fallopia japonica) will be implemented. |
| Badgers and Hedgehogs | No evidence of badgers or hedgehogs was found on-site but it cannot be ruled out that they may cross the Site periodically. | As a matter of good practice, any trenches dug as part of construction work should be covered over at night, or left with a ramp or sloping end, to prevent mammals from falling in and becoming trapped. Similarly, any pipes over 200mm in diameter should be capped off at night. |
| Bats | No potential roosting features were observed on-site.<br>The habitats on-site were largely sub-optimal to support foraging bats comprising intensively managed arable land. The boundary hedgerows offered the best opportunities to support foraging and commuting bats. | Boundary habitats should be retained and protected as detailed above as these provide the best opportunities for foraging and commuting bats. Illumination of these features should be avoided to maintain a dark corridor for foraging and commuting bats. |

| Ecological Receptor | Results & Discussion | Recommendations |
|---|---|---|
| Birds | An important assemblage of bird species was considered unlikely to be present on-site. However, all bird species receive legal protection during nesting; there is the potential for any vegetation clearance to damage or destroy active nests, if undertaken during the nesting season. | Boundary habitats should be retained and protected as these provide the best opportunities for nesting birds.<br>As all species receive legal protection during nesting, it is advised to complete any vegetation clearance and building works outside of the breeding bird season of March to August (inclusive). Vegetation clearance outside of this period should still be preceded by a nesting bird carried out by contractors, as some species can nest all year round. Any active nests would need to remain unaffected until all chicks had fledged. |

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# *APPENDICES*

# APPENDIX 1: Relevant Legislation

## European Protected Species

All British bat species, great crested newt, hazel dormice and otters are fully protected through The Conservation of Habitats and Species Regulations 2010 as a European Protected Species (EPS). They also receive some protection through inclusion in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Under the legislation, it is an offence to deliberately capture, injure or kill these species. It is an offence to damage or destroy a breeding site or resting place of these species while it is occupying a structure or place which it uses for shelter or protection; or obstruct access to any structure or place which it uses for that purpose.

It is also an offence to deliberately disturb these species. Disturbance of animals includes in particular any disturbance which is likely (a) to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or (b) to affect significantly the local distribution or abundance of the species to which they belong.

The 'appropriate authority' (Natural England in England) has powers to issue licences for various purposes including - (a) scientific or educational purposes… and (b) preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment. The appropriate authority shall not grant a licence under this regulation unless they are satisfied - (a) that there is no satisfactory alternative, and (b) that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range. It is an offence for any person authorised by virtue of a licence to which this paragraph applies to contravene or fail to comply with any condition which the licence requires him to comply with.

## Nesting birds

All wild birds in the UK are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy the nest (whilst being built or in use) or its eggs. Bird species listed in Schedule 1 of the 1981 Act, receive further protection which makes it an offence to intentionally or recklessly disturb these species while building a nest or in, on or near a nest containing eggs or young; or to disturb dependent young of such a bird.

## Badgers

The Protection of Badgers Act 1992 was introduced in recognition of the additional threats that badgers face from illegal badger digging and baiting. Under the Act, it is an offence inter alia to:

- Wilfully kill, injure or take a badger, or to attempt to do so;
- Cruelly ill-treat a badger; or
- Intentionally or recklessly interfere with a badger sett by:
- damaging a sett or any part of one;
- destroying a sett;
- obstructing access to or any entrance of a sett;
- causing a dog to enter a sett; or

- disturbing a badger when it is occupying a sett.

## Reptiles

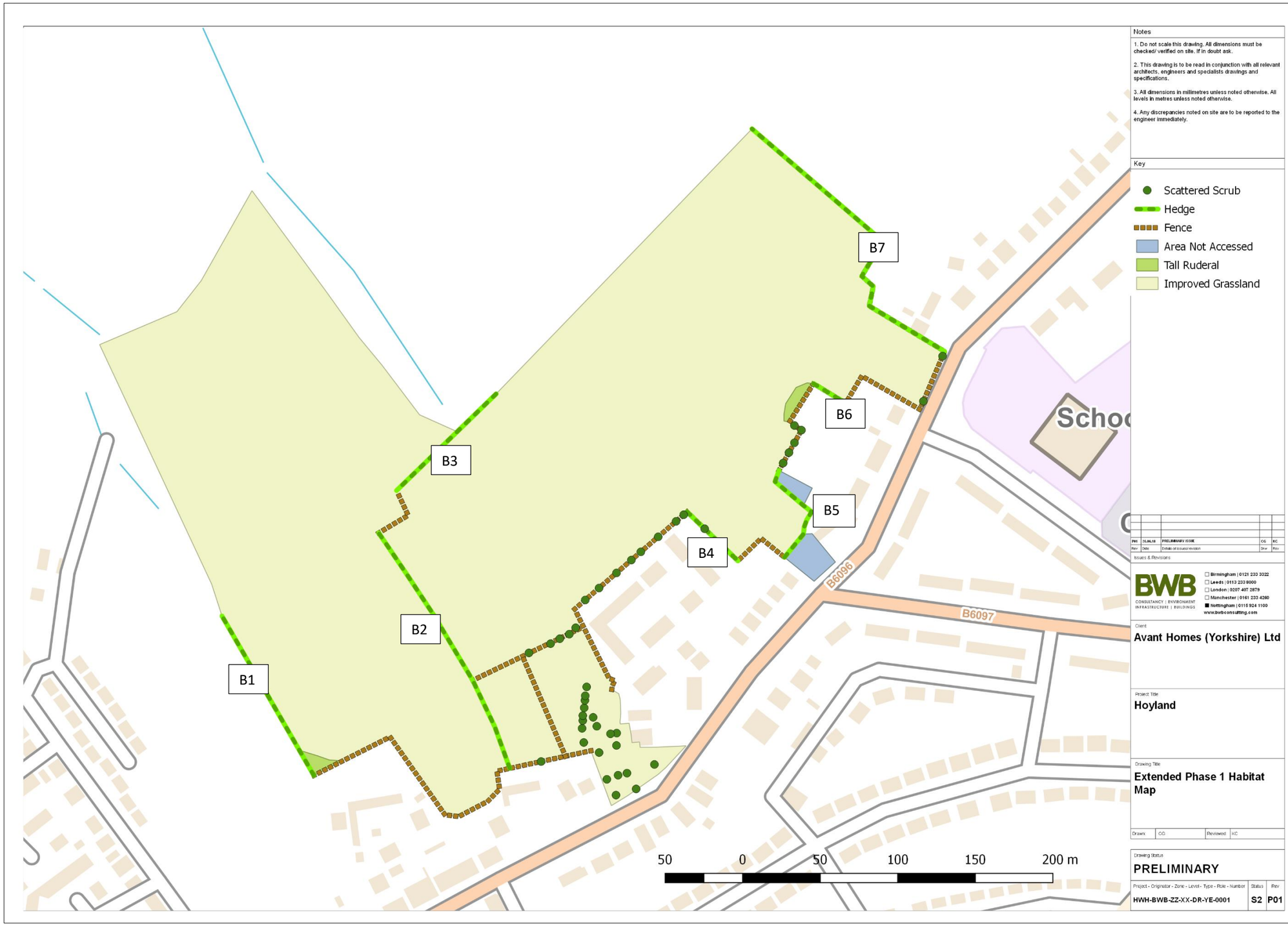
Four species of reptile, the adder *Vipera berus*, grass snake *Natrix natrix*, slow worm *Anguis fragilis* and common lizard *Lacerta vivipara* are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) as well as being listed on the UK Post-2010 Biodiversity Framework (formerly UK BAP).

In net effect, it is an offence to deliberately capture, injure or kill common lizard, adder, grass snake or slow worms.

Two reptiles, the sand lizard *Lacerta agilis* and the smooth snake *Coronella austrica*, are European Protected Species under The Conservation of Habitats and Species Regulations 2010 (as amended). They are also listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are protected by Parts 4(b), 4(c) and 5 of Section 9 of that Act.

## APPENDIX 2: Extended Phase 1 Habitat Map

BWB


B1
B2
B3
B4
B5
B6
B7
B6096
B6097
Schoo
50 0 50 100 150 200 m
Notes
1. Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
3. All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.
4. Any discrepancies noted on site are to be reported to the engineer immediately.
Key
Scattered Scrub
Hedge
Fence
Area Not Accessed
Tall Ruderal
Improved Grassland
P01 26.06.18 PRELIMINARY ISSUE CG KC
Rev Date Details of issues/revision Drw Rev
Issues & Revisions
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Client
Avant Homes (Yorkshire) Ltd
Project Title
Hoyland
Drawing Title
Extended Phase 1 Habitat Map
Drawn: CG Reviewed: KC
Drawing Status
PRELIMINARY
Project - Originator - Zone - Level - Type - Role - Number
HWH-BWB-ZZ-XX-DR-YE-0001
Status S2
Rev P01

# APPENDIX 3: Site Photographs

| | |
|---|---|
| **Improved grassland** |  |
| **Example boundary hedgerow with associated tall ruderal** |  |
| **Timber sheds** |  |

# APPENDIX 4: eDNA Results

SureScreen Scientifics

Folio No: E3541
Report No: 1
Order No: 133-156

Contact: Gemma Longman

Date: 11/07/2018

# TECHNICAL REPORT

## ANALYSIS OF ENVIRONMENTAL DNA IN POND WATER FOR THE DETECTION OF GREAT CRESTED NEWTS

**Date sample received at Laboratory:** 28/06/2018
**Date Reported:** 11/07/2018
**Matters Affecting Results:** None

### RESULTS

| Lab Sample No. | Site Name | O/S Reference | SIC | DC | IC | Result | Positive Replicates |
|---|---|---|---|---|---|---|---|
| 1945 | Hoyland Pond | SE 35340 00807 | Pass | Pass | Pass | Negative | 0 |

### SUMMARY

When Great Crested Newts (GCN); Triturus cristatus inhabit a pond, they deposit traces of their DNA in the water as evidence of their presence. By sampling the water, we can analyse these small environmental DNA (eDNA) traces to confirm GCN habitation, or establish GCN absence.

The water samples detailed below were submitted for eDNA analysis to the protocol stated in DEFRA WC1067 (Latest Amendments). Details on the sample submission form were used as the unique sample identity.

### RESULTS INTERPRETATION

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