



NEW AGRICULTURAL SHED AT HETHPOOL FARM, COLLEGE VALLEY ESTATES

Construction of a new farm building for agricultural use at Hethpool Farm.

Planning application reference:

May 2020

Summary

- *Proposed construction of an agricultural shed to replace existing sheep pens at Hethpool, College Valley Estate.*
- *The site lies within 125m of the Elsdon Burn that flows into the College Burns, which is a tributary of the River Till.*
- *The River Till is part of the River Tweed catchment SSSI and SAC.*
- *Biological records from ERIC and other sources provided few relevant records.*
- *The proposed sites consists of improved permanent pasture and a metal hay shed that are adjacent to a conifer shelter belt comprised of Scot's pine.*
- *Survey carried out on the 21st May 2020.*
- *Few flowering plants were found on the site during the habitat survey.*
- *No species of interest were found after surveying the pasture and metal hay shed.*
- *Impact on the habitats and species is deemed to be insignificant.*

	Who	Dates
Surveyor	George Dodds	21/05/2020
Report author	George Dodds	27/05/2020
Q/A	Anna Caine / George Dodds	28/05/2020

Professional Indemnity Insurance number: PIP12001058

George Dodds & Co aims to:

- To provide professional high quality environmental advice and practical guidance to farmers and landowners in Northumberland, North East England and the Scottish Borders.
- All work adheres to the Chartered Institute of Ecology and Environmental Management standards and guidance See <http://www.cieem.net/> for full details

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Environmental assessment for new agricultural shed at Hethpool Farm, College Valley Estates.

1 INTRODUCTION

College Valley Estates Ltd requested an Environmental Impact Assessment to be carried out as part of their planning application for the construction of an agricultural shed at Hethpool Farm.

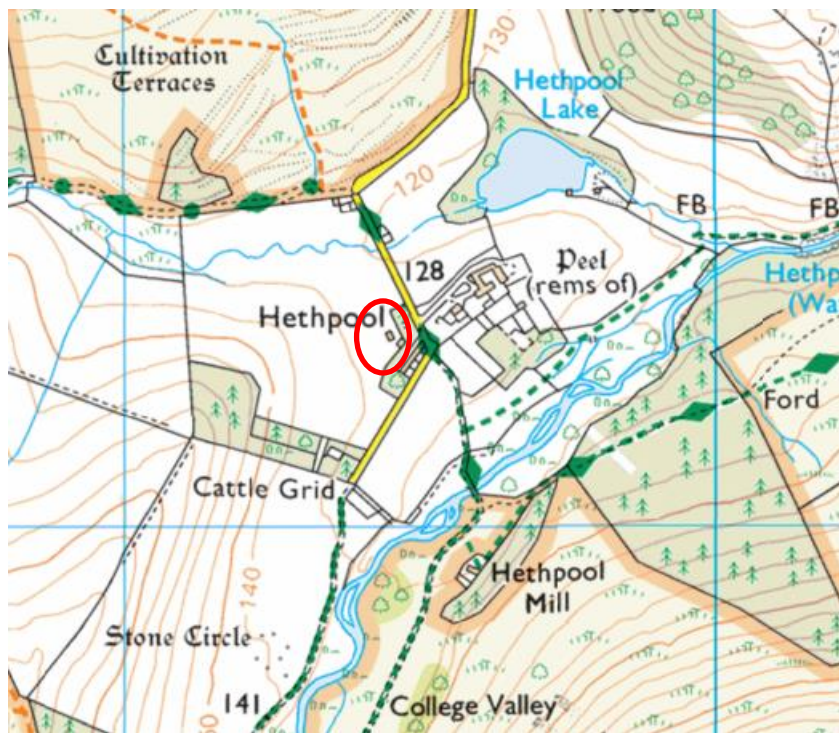


Figure 1: Location of site at Hethpool, College Valley.

The central grid reference for the site is NT89422830

The proposed construction is located on the western side of the hamlet of Hethpool within the College Valley. The land lies within the Northumberland National Park.



Figure 2: Aerial photograph of Hethpool showing the surrounding land use.

The area within the red box highlights the habitats that were surveyed during the visit on the 21st May 2020.

1.1 RELEVANT LEGISLATION

Under Section 25 (1) of the Wildlife & Countryside Act (1981), local authorities have a duty to take steps which they consider expedient. The authorities bring these to the attention of the public under the provision of Part 1 of the Wildlife & Countryside Act, which includes measures to conserve protected species.

The Natural & Rural Communities Act (2006) places a Statutory Biodiversity Duty on public authorities to take such measures as they consider expedient for the purpose of conserving biodiversity, including the restoring or enhancing a population or habitat.

Paragraph 109 of the National Planning Policy Framework (NPPF) requires that the planning system minimises impacts on biodiversity and provides net gains where possible.

Legislation relating to protected species is summarised in Appendix 1

2 METHODOLOGY

2.1 DESK TOP SURVEY

Natural England's Magic on the Map website was used to determine designated wildlife sites within 1 km of the proposed development.

A search of relevant biological data was made as part of a desk-top study before going out on site. Biological information from The Environmental Records Information Centre (ERIC) in Newcastle was obtained. This provided details of protected and notable species and other species found within 1km of the site.

Data was also searched from the National Biodiversity Network (NBN), Northumberland & Tyneside Bird Club and British Trust for Ornithology.

2.2 SITE SURVEY

The site survey was carried out on the 21st May 2020. The survey was started at 13:30 hours and was completed by 14:45 hours.

The survey was carried outside the limits of a normal bat roost and breeding bird survey. The weather was overcast with the occasional shower. Wind was westerly 1-2 becoming variable. The air temperature was 16°C.

The following taxa were considered during the site visit:

- A botanical survey of the area around the property was carried out using standard vegetation survey techniques for National Vegetation Classification (NVC). An assessment of species abundance was measured to determine, where possible, the NVC categories for the site.
- An assessment of the site for birds using the site.
- A search was made of the existing farm shed for potential breeding and roosting sites for Barn owls *Tyto alba*.
- Searches were made for evidence of mammals (e.g. Badgers *Meles meles*, Otter *Lutra lutra* and Red squirrels *Sciurus vulgaris*). The search considered breeding sites, latrines, tracks, evidence of hair and prey.
- An assessment of bat habitats was carried out especially in relation to the existing hay shed and neighbouring conifer woodland. Particular attention was given to hole, cavities, cracks, and flaking. Where these features were located, attention was made to determine whether there were grease marks, urine stains or droppings located in / around the feature.
- A search was made of relevant habitats that would be used by amphibians, especially potential Great crested newt *Triturus cristatus* habitats.
- An assessment of invasive plant species was also carried out.

The site survey was undertaken by George Dodds; an experienced ecologist and a member of the Chartered Institute of Ecology and Environmental Managers (CIEEM) and the Chartered Environmentalist (CEnv) since 2004 with 25 years of experience especially in surveying for birds, mammals and vegetation.

3 SITE DESCRIPTION

The site of proposed farm building is on the edge of the hamlet of Hethpool within College Valley Estates. Proposed site lies within the Northumberland National Park. It lies on the edge of an existing small farmyard consisting of a small paddock, metal hay shed and parking area for farm machinery. The site is on an area improved grass pasture.

The new farm building will help to minimise agricultural pollution and will see the removal of existing sheep pens (NT8937 2854), which have become an eyesore and a source of diffuse pollution in the Elsdon Burn and ultimately the River Till Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC).

The site can be split into four distinct area;

- Permanent pasture
- Conifer shelter belt
- Tiny paddock to the west of the metal hay shed.
- Metal hay shed.

Phase 1 survey map (Appendix 8.2) of the area highlights these habitats and others.

4 RESULTS

4.1 DESKTOP SURVEY

The primary land uses surrounding the proposed site is improved permanent pasture, rough grazing and shelter-belt conifer woodlands (see Appendices 8.2 for Phase 1 survey.

4.1.1 Designations

There are no statutory land or habitat designations on the land of the proposed development, although the whole area lies within the Northumberland National Park.

The following designated sites are found within 5km:

- The College Burn which is part of the Tweed catchment Rivers – England: Till catchment, which is 275m to the east of the proposed site. The Elsdon Burn lies 125m to the north, which is a tributary of the College Burn but not designated.
- College Valley woodlands SSSI lies 750m to the south of the site.
- Humbleton Hills and The Trows SSSI lie 4.8km to the east of the site.
- Cheviot SSSI lies 5km to the south of the site.

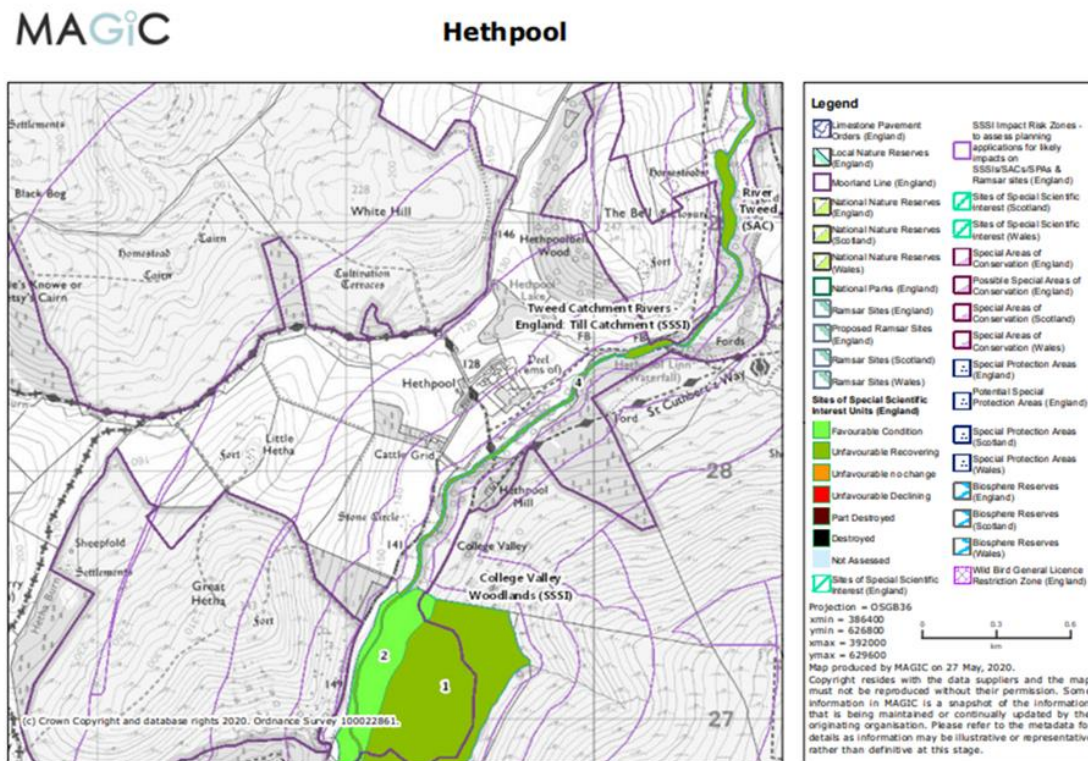


Figure 3: Habitat designations within 1km of the proposed site.

4.1.2 Habitats

Figure 4 highlights the habitats that have been recorded within 1 km of the proposed development site. A number of these habitats are woodland. Those grasslands closest to farm buildings tend to be the most improved.

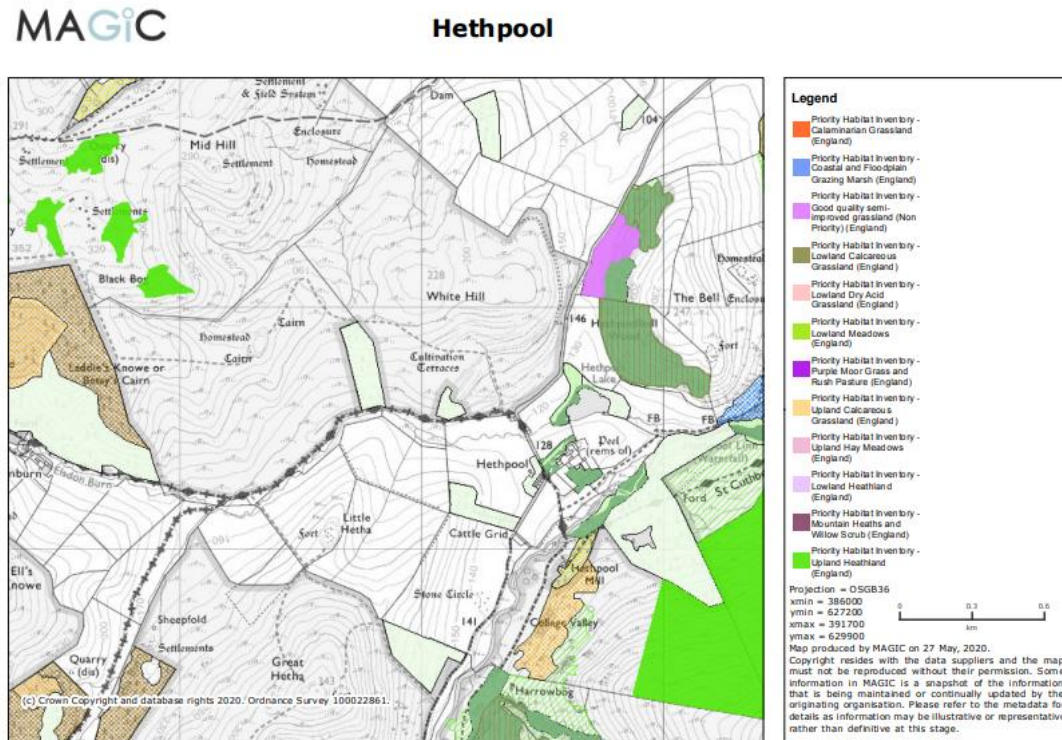


Figure 4: Habitats that have been recorded around Hethpool.

4.1.3 ERIC data

There are a number of records that have been supplied by ERIC. The most pertinent records are:

- There are a number of plant records from the Hethpool area. G. A. Swann produced some interesting records of Eyebright *Euphrasia arctica subsp. borealis* in 1962 as well as Annual Knawel *Scleranthus annuus* in 1961 and 1979. The remaining Hethpool plant records are from A. Middleton, D. Watson, H. Proctor and K. Tongue from July 2013. Species include Harebell *Campanula rotundifolia*, Eyebright *Euphrasia confuse*, Bluebell *Hyacinthoides non-scripta*, Common valerian, Valeriana officinalis, Bitter-vetch *Lathyrus linifolius*, Lesser spearwort *Ranunculus flammula* and Heath speedwell *Veronica officinalis*.
- There are several records of Common toad *Bufo bufo* and Common frog *Rana temporaria* from April 2013.
- There is one record of Adder *Vipera berus* from August 2014.
- No birds of that are Red-listed species are recorded.

- There are 5 records of Red squirrel *Sciurus vulgaris* between 1989 and 1990. There is a record of Otter within 500m of the site in April 1996 (S Hackett). Water shrew *Neomys fodiens* was recorded in Spring 2004 by Kevin O’Hara. There is a record of Pine marten *Martes martes* in April 2016 from the Hethpool car park. No bats species were listed on the ERIC data.

4.1.4 National Biodiversity Network and other databases

A search of the National Biodiversity Network (NBN), British trust for Ornithology and the Northumberland & Tyneside Bird Club and my records, all revealed a number of bird records for a 1 km area around Hethpool. There are records for 14 species that are on the red list of species of conservation concern; Curlew *Numenius arquata*, Woodcock *Scolopax rusticola*, Cuckoo *Cuculus canorus*, Skylark *Alauda arvensis*, Mistle thrush *Turdus viscivorous*, Song thrush *Turdus philomelos*, Spotted flycatcher *Muscicapa striata*, Grey wagtail *Motacilla cinerea*, Common starling *Sturnus vulgaris*, House sparrow *Passer domesticus*, Tree sparrow *Passer montanus*, Linnet *Carduelis cannabina* Lesser redpoll *Acanthis cabaret* and Yellowhammer *Emberiza citronella*.

On average, five pairs of Barn owl nest on the estate annually.

A search of the NBN Gateway database also indicated that there are records of Brown hare *Lepus europaeus* within 1km.

There are no records of Great crested newt in the vicinity of the site (5km).

4.2 HABITAT SURVEY

A Phase I survey is provided in Appendix 2.

4.2.1 Site of the proposed development

The grassland around the proposed site of the farm buildings have been improved through the use of inorganic fertiliser. It is understood that a number of these fields receive at least two applications of fertiliser per year. The site is also in the ‘heart’ of the Hethpool Farm and the fields are grazed intensively for much of the year.



Figure 5: Land use around the proposed site – taken from Defra’s Basic Payment maps.

The pasture is 4.50 ha in size. National Vegetation Classification (NVC) for the sward would suggest a MG7 *Lolium perenne* leys and associated grasslands. The main species of grasses are Perennial rye-grass *Lolium perenne*, Cock’s-foot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus*, Red fescue *Festuca rubra* and Annual meadow-grass *Poa annua*. Rough meadow-grass *Poa trivialis* and Crested dog’s tail *Cynosurus cristatus* were also found.

Flowering plants included Common sorrel *Rumex acetosa* and Common mouse-ear *Cerastium fontanum* are also occasional within the sward.



Figure 6: Proposed site looking from the north with the Scot's pine shelter belt on the back left hand side.



Figure 7: Proposed site looking from the south.

4.2.1.1 *Tiny paddock (south east of metal shed)*

An very small fenced off area to the south east of the metal hay shed had a similar sward but there were several of Pignut *Conopodium majus* plants. This is probably an indication that the sward may have been more diverse if no inorganic fertiliser are used.

4.2.1.2 *Entrance to the field (yard area)*

The yard in front of the shed is more vegetated than most. Most of the species area grasses that was found in the main field with a greater dominance of Annual meadow-grass. Other plants include Broad-leaved dock *Rumex obtusifolius*, Common nettle *Urtica dioica*, Redshank *Persicaria maculosa* and Pineappleweed *Matricaria discoidea*.

4.2.2 *Conifer plantation*

There is a 0.11 ha conifer shelter belt to the southern side of the proposed development. This provides shelter from north westerly winds for the Hethpool cottages. No trees will be removed for the construction of the farm building.

The plantation is dominated by Scot's pine *Pinus sylvestris* with an under-storey of Elder *Sambuca nigra*. The plantation is approximately 40 years old and is used as a hen run as well as for garden storage.

4.2.3 Metal hay shed

This shed is open fronted (easterly) and used for storing winter fodder for sheep.

4.2.4 Invasive species

No invasive plant species were found during the survey of the site.

4.3 SPECIES SURVEY

4.3.1 Birds within the area

During the survey, relatively few birds were seen / heard. Birds seen in the area included Woodpigeon *Columba palumbus*, Jackdaw *Corvus monedula*, Dunnock *Prunella modularis* (1), Tree sparrow (1), Chaffinch *Fringilla coelebs* (2) and Robin *Erithacus rubecula* (1). Swallow *Hirundo rustica* and House martin *Delichon urbicum* were heard.

4.3.1.1 Barn owl

There was no evidence of Barn owls using the metal hay shed. No birds, pellets or dropping were found at the time of the survey. Barn owls are currently breeding in a box, 900m to the south of the site. The most used roost site at Hethpool is 250m to the east of the proposed development.

4.3.2 Mammals

4.3.2.1 Red squirrel

Evidence of Red squirrel was found within the small conifer plantation with a small number of eaten cones. No trees are to be removed.

4.3.2.2 Badger and otters

There was no evidence of Badger or Otters on the site. The site was rigorously checked for holes, latrines, tracks, hair and claw marks but nothing was found.

4.3.2.3 Bats

The shed is entirely made of metal with no timber or stone facias. The shed was searched was checked thoroughly for bats and their evidence (e.g. droppings or the wings of moths and butterflies). No evidence was found.

4.3.2.4 Other mammals

Brown hares were seen 200m to the south of the site during the survey. It is very unlikely that the site will be used by Brown hares as the site is very close to habitation.

4.3.3 Other taxa

There are no records of Great crested newts *Triturus cristatus* within 2km of the proposed site. There is no evidence of water on the site.

5 ENVIRONMENTAL RISK ASSESSMENT

The proposal is to construct a new agricultural building that can be used for storage and livestock handling. The proposal will allow the current set of sheep handling pens (that drain into the Elsdon Burn) to be taken down and returned to pasture.

5.1 DESIGNATED SITES

There are no designated sites or habitats within the proposed development area. The nearest designated site lies 275m to the east. The design of the building and the lighting will be in-keeping with the local landscape.

The relocation of the sheep pens will result in minimal diffuse pollution reaching the SSSI / SAC. The current situation could be described as poor as all drainage, from the sheep pens, is towards the Elsdon Burn.

Impact: No significant impact (hopefully help to improve the designation).

5.2 HABITATS

5.2.1 Improved pasture.

The sward of the existing grassland has a poor species diversity due to being improved by inorganic fertilisers

Impact: No significant impact.

5.2.2 Conifer plantation to the south east of the proposed site.

No trees will be removed from the site.

Impact: No significant impact

5.2.3 Metal hay shed

At the time of the survey, there were no evidence of birds, bats or other mammals using the structure.

Impact: No significant impact

5.3 SPECIES

5.3.1 Birds

No birds were observed using the site. The site is unsuitable for ground-nesting birds. Several species were found in the adjacent conifer shelter belt.

Impact: No significant impact

5.3.1.1 *Barn owl*

There was no evidence that Barn owls were using the site or the shed. The grass pasture was too short to hold potential prey species.

The metal had very little opportunity for roosting and no potential for breeding Barn owls. No evidence of pellets, feathers or faeces were found.

Impact: No significant impact.

5.3.2 Mammals

No evidence of mammals using the site were found. A thorough search was carried out for hair, tracks, lying up areas and breeding sites but none were found.

Impact: No significant impact.

5.3.3 Other taxa

No evidence of other taxa was found.

6 RECOMMENDATIONS

Paragraph 109 of the National Planning Policy Framework (NPPF) requires that the planning system minimizes impacts on biodiversity and provides net gains where possible. The following mitigation measures are suggested:

- Put up a Barn owl box within the new agricultural building.
- Any outdoor lighting will follow guidance set out by the Bat Conservation Trust www.bats.org.uk/pages/bats_and_lighting.html
- Create a screen using native trees and shrubs. The screen will, in time, help to reduce the impact of the building in the landscape especially looking from the north. Tree and shrub species could include Oak, Silver birch, Small-leaved lime, Hazel, Scot's pine, Holly, Rowan, Hawthorn and Dog rose.

7 REFERENCES

- Data from The Environmental Records Information Centre
- National Biodiversity Network - <https://nbnatlas.org/>
- Keys to the Past – <Http://www.keystothepast.info>
- MAGIC - <Http://magic.defra.gov.uk>
- British Trust for Ornithology
- Northumberland & Tyneside Bird Club.
- Google Earth
- The National Vegetation Classification - Joint Nature Conservation Committee
- Chartered Institute of Ecology and Environmental Assessment Technical Guidance www.cieem.net

8 APPENDIX

8.1 LEGISLATION RELATING TO PROTECTED SPECIES

Bats

In Britain all bat species and their roosts are legally protected, principally under the Conservation of Habitats and Species Regulations (2010), with additional protection under the Wildlife and Countryside Act (1981) (as amended, including under Schedule 12 of the Countryside and Rights of Way Act, 2000, which created a new offence of reckless disturbance.

The combined effect of these is that a person is guilty of an offence if he;

- Deliberately captures, injures or kills a bat
- Intentionally or recklessly disturbs a bat in its roost or deliberately disturbs a group of bats.

In particular where this may;

- i. impair their ability to survive, to breed or reproduce, or rear or nurture their young;
- ii. Affect significantly the local distribution or abundance of the species

- Damages or destroys a bat roosting place (even if bats are not occupying the roost at the time)
- Intentionally or recklessly obstructs access to a bat roost.

Nesting Birds

All birds, their nests and eggs are protected by law and it is an offence, with certain exceptions, to:

- intentionally kill, injure or take any wild bird
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built
- intentionally take or destroy the egg of any wild bird
- intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building or is in, on or near a nest with eggs or young; or disturb the dependent young of such a bird. Barn Owls are named in Schedule 1 of this Act.

Badger.

Badgers and their setts are protected under the Protection of Badgers Act 1992, which makes it illegal to kill, injure or take badgers or to interfere with a badger sett. The term 'badger sett' is normally understood to mean the system of tunnels and chambers, in which badgers live, and their entrances and immediate surrounds. The 1992 Act specifically defines a sett as "any structure or place which displays signs indicating current use by a badger".

Badgers are also offered protection under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended).

Amphibians and Reptiles

All native amphibian and reptile species are protected under UK laws to varying degrees. Amphibians and reptiles fall into three groupings with differing levels of protection:

Widespread Amphibians

The palmate newt, smooth newt, common frog and common toad are listed on Schedule 5 of the Wildlife and Countryside Act 1981. Their inclusion on Schedule 5 gives 'partial protection'. In addition to the restrictions on sale (as for the widespread amphibians, above) they are also protected from intentional killing or injuring.

Widespread Reptiles

Four reptile species, slow-worm, viviparous (or common) lizard, grass snake and adder also have protection under Schedule 5 of the Wildlife and Countryside Act 1981.

European Protected Species

These are strictly protected species, great crested newt, natterjack toad, sand lizard and smooth snake, which are protected by a combination of both the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species Regulations 2010. Protection of these European protected species differs from that of the widespread reptiles in that not only are they protected from killing and injury, but also from disturbance and capture. Additionally, the habitat of European protected species is legally protected, from damage or destruction. The development of a site where European protected species occur can proceed only if licensed by Natural England.

Species of Principal Importance/BAP Priority Species.

These are all species included in the List of Habitats and Species of Principal Importance in England under Section 41 of the Natural Environment and Rural Communities Act 2006. In relation to this development this includes most of the species above and may include species widespread in the area on farmland such as Brown hare, Red squirrel and Yellowhammer.

8.2 APPENDIX 2 – PHASE 1 VEGETATION SURVEY

