19/08/2019

From: Gareth Reed

Sent: 19 August 2019 14:52 To: Hilary Saunders Cc: Jill Bastow

Subject: FW: Golden Grove

Hillary/Jill, we have just received a further amendment to the ecology report which now incorporates bat records from the local bat group. Thanks.

Kind Regards,

Gareth Reed

Director

NYMNPA

19/08/2019



PRELIMINARY ECOLOGIAL APPRAISAL

GOLDEN GROVE WHITBY

REED-19-02. AUGUST 2019



Naturally Wild Consultants Limited 3 Halegrove Court Cygnet Drive Bowesfield Stockton-on-Tees TS18 3DB



PRELIMINARY ECOLOGICAL APPRAISAL

GOLDEN GROVE WHITBY NORTH YORSHIRE YO22 5HH

GRID REF NZ 9045 0851

REPORT FOR REED STUDIOS

Quality Assurance

Version	Prepared by	Date	Checked by	Date	Approved by	Date
R1	Heather	13/08/2019	Graeme	13/08/2019	Graeme	13/08/2019
	Lyons		Skinner		Skinner	
R2	Heather Lyons	16/08/2019	Minor Amendments			

This report is intended to provide an accurate description of findings from survey work undertaken on the date shown in the report; however, it cannot fully account 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 Golden Grove, Whitby. The survey area is comprised of a small area of woodland. The proposals are to construct a small lodge and install a sceptic tank.

The PEA comprised two parts: a desktop study and a site 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, bat records within 2 km of the site were requested from the North Yorkshire Bat Group.

The site visit consisted of an assessment of all habitats on site and in the surrounding area to determine their ecological importance to protected species and was conducted on 19/07/2019 by ecologists Heather Lyons MSc BSc (Hons) & Tom Richardson BSc (Hons).

Overall, the site was found of be of moderate ecological value. There is a potentially active badger sett located immediately to the north of the site and evidence that badgers use the site for commuting and foraging. As the site is on an area of woodland covered slope, it is considered to be of good habitat for badger sett creation. The tree on site which is due to be felled, a mature hawthorn, is considered to be of negligible value to roosting bats and of moderate value to nesting birds. The stream along the southern boundary of the site was deemed to have some value for water voles. Following the site assessment and in review of the findings, Naturally Wild would recommend the following: Up to 24 hours prior to works commencing, a badger activity survey must be carried out by an ecologist to ensure that no new setts have been created within 30m of the proposed works site. This is to ensure that any new badger setts are not damaged or destroyed by the works. The hawthorn tree that is to be felled should be felled outside of bird breeding season to avoid disturbance to nesting birds or the destruction of a nest/ injury or death to chicks. Bird breeding season is considered to be from March 1st to August 31st. To minimise the impact on tree roosts for the surrounding trees on site, it is strongly recommended that the holiday lodges foundations are to be on a series of stilts rather than conventional building foundations. If dogs are allowed to be on site as part of the holiday letting, they should be kept on a lead at all times while on the site. Adjacent trees to the proposed location for the holiday lodge are to be protected using Heras or equivalent fencing around their Root Protection Areas. A low-level 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 and adjacent badger setts. At least one hawthorn tree should be planted on site to compensate for the loss of the tree which is due to be felled. It is recommended that "habitat piles" consisting of the wind felled branches and trunks are created on site to create refugia piles and micro habitats for invertebrates and small mammals. Several Schwegler 2F bat boxes should be installed within mature trees on site. 1B Schwegler nest boxes for birds should be installed on several mature trees on site.



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.



PRELIMINARY ECOLOGICAL APPRAISAL: GOLDEN GROVE, WHITBY

1 INTRODUCTION

Naturally Wild were instructed to undertake a Preliminary Ecological Appraisal (PEA) at Golden Grove, Whitby (Figure 1). The survey area is comprised of a small area of deciduous woodland. 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 to fell one mature hawthorn (*Crataegus monogyna*) tree and construct a holiday lodge within the woodland. This would also involve improving pedestrian access to the lodge from the car parking area. As part of the planning process, an ecological assessment is required to determine if any European, UK Biodiversity Action Plan (BAP) or other important protected species/habitats are likely to be affected by the proposed works, and to show how any negative ecological impacts would be mitigated and compensated.

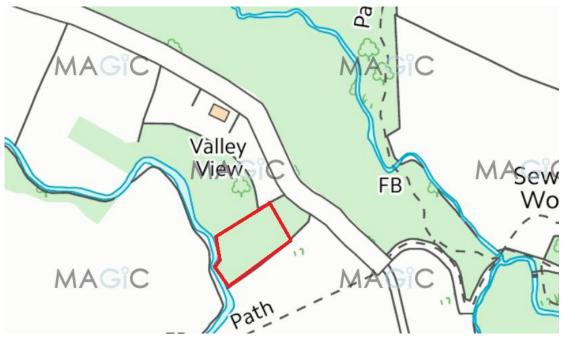


Figure 1. Site location plan. Red line shows the area proposed for development. (© Crown Copyright and MAGIC database rights 2019. Ordnance Survey 100022861).



2 RELEVANT LEGISLATION

British wildlife is protected by a range of legislation, the most important being the Wildlife and Countryside Act 1981, the Countryside Rights of Way Act 2000 and The Conservation of Habitats and Species Regulations 2017. The Wildlife and Countryside Act, as amended mainly by the Countryside Rights of Way Act, 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. A recent change in this legislation means that the provisions of this act now complement those of the Wildlife and Countryside Act more. Species to which these provisions apply are the European Protected Species. Activities that might cause offences to be committed can be legitimised by obtaining a licence from the relevant statutory body.

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 of a desktop study and a site 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, using the Multi-Agency Geographic Information for the Countryside (MAGIC) resource. In addition, bat records within 2 km of the site were requested from the North Yorkshire Bat Group.

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 ecologist. 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 Heather Lyons MSc BSc (Hons) and Tom Richardson BSc (Hons) who are experienced in protected species survey work. All survey and assessment work has been completed in line with official guidelines produced by Natural England and the Chartered Institute for Ecology and Environmental Management, and British Standard document BS 42020: 2013 'Biodiversity – Code of practice for planning and development.'

3.2 Survey Area

The application site is located at Grid Reference NZ 9045 0851 and can be accessed via Glen Esk Road. The assessment focused on the application site, as well as all habitats in the immediate surrounding area (where access was available).



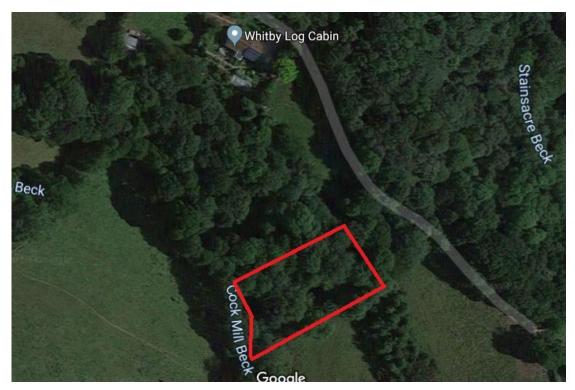


Figure 2. Location of the surveyed area. Application site boundary is shown by the red line.

(Image taken from Google Earth Pro: ©2019 Map Data Google 2019)

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 Friday 19th July 2019 and consisted of an assessment of the habitats on and adjacent to the site. The dominant vegetation structure was identified, allowing the habitats to be classified. Following this, the habitats present were assessed for their suitability to support protected species and for the presence of any evidence of protected species.

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, water voles (*Arvicola amphibius*) 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

Any badger entrances found during the survey were classified in accordance with standardised survey guidelines (Harris *et al.*, 1989), being grouped into setts, where applicable, and categorised in terms of the type of sett (in descending order of significance: main, annexe, subsidiary, outlier) and the level of use of each hole (well-used, partially-used, disused).

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



	their size, shelter, protection, conditions and	Two surveys must occur between May and			
	surrounding habitat.	August.			

Evidence of roosting bats includes: bat droppings in, around or below an entrance hole; staining around an entrance hole; small scratches 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.

The assessment was completed using ladders, binoculars and powerful torches. An endoscope was also available to check any small gaps/cracks for evidence 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 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.

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.

Water Voles: The assessment for water voles followed a similar methodology to that for otters, with an assessment of the habitats present carried out to determine their suitability to support water voles, as well as a check for any evidence of their presence, including burrows (sheltering areas), characteristic bite marks on vegetation, droppings, prints, or water voles themselves.

Reptiles: The assessment for reptiles followed a similar methodology to that for GCN, with an assessment of the habitats present carried out to determine their suitability to support reptiles, 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.



4 RESULTS

4.1 Desktop Study

4.1.1 Designated Sites

The closest statutory protected site is the North York Moors National Park which the site is within. The next closest protected site is Whitby-Saltwick Site of Special Scientific Interest (SSSI) (ref code: 1003507, 39.95ha) which is 2.6km North of the proposed development site. This SSSI is designated for geological features. There are three other SSSIs, one Special Protection Area (SPA) and one Special Area for Conservation (SAC) within 5km of the proposed development. There are no National Nature Reserves within 10km.

Due to the small scale and localised nature of the works, it is highly unlikely that this development would have an impact on the near-by protected sites.

Table 3. Statutory and non-statutory designations in the areas surrounding the site.

Designation	Reference	Name	Area (ha)	Distance and direction from site
National Park	7	North York Moors	144100	0 km
Special Area				
of Conservation (SAC)	UK0030228	North York Moors	44094.41	2.7 km South-west
Special				
Protection	UK9006161	North York Moors	44094.41	2.7 km South-west
Area				
Sites of	1003469	Littlebeck Wood SSSI	16.77	4.4 km South-east
Special Scientific	1006290	Robin Hood's Bay: Maw Wyke to Beast Cliff SSSI	367.61	3km East
Interest	1003507	Whitby-Saltwick SSSI	39.95	2.6 km North
(SSSIs)	1007119	North York Moors SSSI	44094.41	2.7 km South-west





Figure 3. Location of the surveyed site in relation to the surrounding designated sites. (© Crown Copyright and MAGIC database rights 2019. Ordnance Survey 100022861).

4.1.2 Bat Records

Bat records were obtained from the North Yorkshire Bat Group for a 2 km radius surrounding the application site. 35 records were returned showing unidentified bats, unidentified myotis, unidentified pipistrelles, common pipistrelles (*Pipistrellus pipistrellus*), Daubenton's (*Myotis daubentonii*), noctule (*Nyctalus noctula*), brown long-eared (*Plecotus auratus*), and whiskered/ Brant's (*Myotis mystacinus/brandti*).

4.2 Site Assessment

4.2.1 On-Site Ecological Features

The site comprised of a small area of deciduous woodland and footpath with disused pig house. The general ecological value of each habitat is described in the paragraphs below, with any notable species-specific findings detailed in section 4.3.

The pig house was a small, arched, structure which had remained unused for a number of years. It was constructed from corrugated metal and was open ended. For the purposes of this report, the pig house was not deemed to be a building due to its small size and dilapidated state. The structure was also deemed to be of negligible value to roosting bats and nesting birds. It is thought that there may be some nesting potential for hedgehogs within the pig house due to its location in good habitat for this species and it being able to provide some shelter from the elements.

The woodland was located on a slope adjacent to a stream and agricultural field. The mid-storey and canopy of the woodland area comprised of a mixture of oak (*Quercus robur*), ash (*Fraxinus excelsior*) and common beech (*Fagus sylvatica*); These trees were considered to be mature. The understorey consisted of mature hawthorn (*Crataegus monogyna*), young common beech and young ash. The shrub and ground



layer consisted of flowering ivy (*Hedera helix*), hedge woundwort (*Stachys sylvatica*), bramble (*Rubus fruticosus*), dog's mercury (*Mercurialis perennis*), red campion (*Silene dioica*) and wood sedge (*Carex depauperate*). The trees on site were considered to be of value to commuting and foraging bats but negligible – low roosting value. The trees were also considered to be of moderate value for nesting birds, although no active bird nests were observed on or near to the site on the date of survey. There were several old, wind felled, branches and tree trunks on site which were considered to be of value to foraging omnivores and insectivores. To the south of the site, close to the stream, was a recently excavated badger latrine with fresh faeces in it. There were also several snuffle holes along the lower sections of the sites slope. This indicates that the site is regularly used by badgers and that it is likely that a badger sett is located within the near-by area. No other evidence of protected or notable species was observed within the site boundaries. However, there is the potential for hedgehogs (*Erinaceus europaeus*) to be found commuting and foraging on site due to its suitability for this species.

4.2.2 Off-Site Ecological Features

Immediately to the north of the site was a potential badger sett, consisting of at least three entrances. It is likely that this sett is active due the disturbed earth near to the entrances and evidence of badger activity on the site. The sett is located at the base of several mature trees on a moderately steep slope. It is estimated that the sett is located approximately 40m from the proposed location of the holiday lodge.

Immediately to the south of the site is Cock Mill Beck which is a stream running along the southern boundary of the site. South of the stream is an agricultural field for livestock. The stream is unlikely to me directly impacted on by the proposed works. The sceptic tank which is to be installed is a soak-away tank which will be located up hill from the stream and will release its contents into the ground, allowing it to filtrate through the soil. Providing that the sceptic tank is managed and maintained at least every 12 months, it is unlikely to have an impact on the stream. The stream banks on site and immediately up and down stream were assessed for their potential for water vole. No evidence of water vole was found although the habitat was deemed suitable for this species on the southern bank.

4.3 Protected Species

Badgers: The site is considered to be of moderate value to badgers. There is a potentially active sett with at least three entrances immediately to the north of the site and evidence of badger foraging and commuting, with a recently used latrine, on site. Due to the site being located on a slope within a woodland, it is considered that the site its self is of good habitat for badger sett creation. If the proposed works took place with no mitigation undertaken, this could potentially damage sections of the sett and disturb badgers, causing them to re-locate from the site.

Bats: Trees on site were considered to be of value to commuting and foraging bats. Trees within the woodland and adjacent to the site contained no visible PRFs, however a small number of PRFs may have been located high up in the canopy and not visible. If the tree which is proposed to be felled (a mature hawthorn) is felled, this would have a negligible impact on bats as this tree contains no PRFs and would be unlikely to affect foraging or commuting.



Great Crested Newts: There is suitable terrestrial habitat and refugia/ hibernacula on site, however there are no ponds were located within 500m of the proposed developments sites boundaries. As great crested newts do not tend to migrate more than this from breeding ponds, it is considered that there is a negligible value to them on site.

Nesting Birds: The site consisted of woodland which was considered to be of moderate value to nesting birds, although no nesting birds were observed on site or the immediate vicinity on the date of survey. It is expected that, if proposed works took place at a time of year when birds were breeding on site, this could potentially have a moderate- major impact on these as it could lead to major disturbance of them or destroy nests.

Water Vole: No evidence of water vole was found on or near to the site on the date of survey. It was considered that there is suitable water vole habitat on the southern bank of the stream as this opened up onto grazed grassland. If water vole were found to be present on site, the proposed development would be unlikely to have a significant impact on water vole in the near-by area.

Reptiles: The woodland area is heavily shaded and considered to be unsuitable for basking for reptile species. No evidence of reptiles was found on site or the immediate vicinity. It is considered to be unlikely that reptiles would be found on site and that there is a negligible value for these species on site.

Other species: There is suitable habitat on site for commuting and foraging hedgehogs, although no evidence of these were found on site. If the proposed works commenced, without appropriate mitigation for hedgehogs, it could result in the entrapment and potential injury or death of a very small number of hedgehogs.

4.4 Invasive Species

No invasive species – including non-native invasive 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, or within habitats adjacent to the site.



5 CONCLUSIONS AND RECOMMENDATIONS

Overall, the site was found of be of moderate ecological value. There is a potentially active badger sett located immediately to the north of the site and evidence that badgers use the site for commuting and foraging in the form of a latrine and snuffle holes. As the site is on an area of woodland covered slope, it is considered to be of good habitat for badger sett creation. The tree on site which is due to be felled, a mature hawthorn, is considered to be of negligible value to roosting bats and of moderate value to nesting birds. Other trees on site are considered to be of moderate value to nesting birds and value to commuting and foraging bats; trees on site and the immediate area were considered to be of negligible-low value for roosting bats. The stream along the southern boundary of the site was deemed to have some value for water voles, although no evidence of water voles was present on the date of survey; the proposed development is unlikely to have an impact on water voles if there were found to be present along this stream. Following the site assessment and in review of the findings, Naturally Wild would recommend the following:

5.1 Mitigation Measures

- Up to 24 hours prior to works commencing, a badger activity survey must be carried out by an
 ecologist to ensure that no new setts have been created within 30m of the proposed works site.
 This is to ensure that any new badger setts are not damaged or destroyed by the works.
 - o If a new badger sett has been created within 30m of the proposed works location, a review of the construction method will be required. Depending on sett location and construction method, a badger licence may be required from Natural England, an artificial sett created off site and the current sett closed off so that badgers can relocate to the new artificial sett.
- The hawthorn tree that is to be felled should be felled outside of bird breeding season to avoid disturbance to nesting birds or the destruction of a nest/ injury or death to chicks. Bird breeding season is considered to be from March 1st to August 31st. If this tree cannot be felled outside of bird breeding season then it must be felled under ecological supervision to ensure that no birds are nesting within the tree.
 - If an active bird nest is found within the tree then the tree cannot be felled until chicks had fledged and no works can take place within a 5m buffer of the nest. This is to avoid disturbance to the nesting birds and their chicks.
- To minimise the impact on tree roosts for the surrounding trees on site, it is strongly recommended that the holiday lodges foundations are to be on a series of stilts rather than conventional building foundations.
 - The excavations for the supporting stilts should be excavated with hand tools and no heavy machinery should be brought onto site that would encroach on a 30m buffer to the badger sett.
- If dogs are allowed to be on site as part of the holiday letting, they should be kept on a lead at
 all times while on the site and must be prevented from entering the area to the north of the site
 where potential badger setts are located and prevented from entering the stream to the south of
 the site.



- Adjacent trees to the proposed location for the holiday lodge are to be protected using Heras or
 equivalent fencing around their Root Protection Areas, in accordance with British Standard
 documentations BS 5837:2012 'Trees in relation to design, demolition and construction.
 Recommendations.' Advice from a professional arboriculturist should be sought when
 establishing the protection areas.
- A low-level 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 and adjacent badger setts, and should include the following elements:
 - Sensitive positioning of lighting to avoid unnecessary spill onto trees in the woodland, badger setts and any habitat enhancement features to be incorporated into the 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.

5.2 Compensation

 At least one hawthorn tree should be planted on site to compensate for the loss of the tree which is due to be felled.

5.3 Enhancement Measures

- It is recommended that "habitat piles" consisting of the wind felled branches and trunks are created on site to create refugia piles and micro habitats for invertebrates and small mammals.
- Several Schwegler 2F bat boxes should be installed within mature trees on site. these bat boxes should be ideally south facing and at least 3m from the ground.
- 1B Schwegler nest boxes for birds should be installed on several mature trees on site, again at least 3m from the ground. This type of bird box, and other wood-crete bird boxes, are less likely to be damaged by woodpeckers and therefore give extra protection to chicks in the nest.

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. Wind fallen branches on site.





Image 2. Wind falllen trunk on site.





Image 3. Snuffle hole on site with Dog's mercury.





Image 4. Site image indicating the slope on site.





Image 5. Proposed location of holiday lodge.





Image 6. Former pig house with current pathway.





Image 7. Mature hawthorn due to be felled.



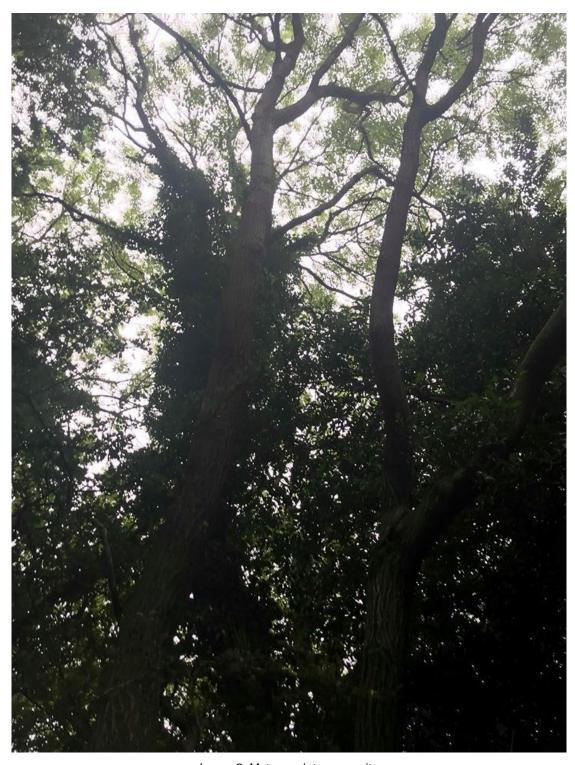


Image 8. Mature ash trees on site.





Image 9. Potential badger sett entrances immediately north of the site.





Image 10. Badger latrine



7 BIBLIOGRAPHY & REFERENCES

Amphibian and Reptile Groups of the UK (2010) ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index. Available: http://www.arguk.org/download-document/9-great-crested-newt-habitat-suitability-index-arg-advice-note-5

British Standards Institution (2013) BS 42020:2013. Biodiversity – Code of practice for planning and development. British Standards Institution, London.

CIEEM (2016) Guidelines for Accessing and Using Biodiversity Data. CIEEM, Winchester.

CIEEM (2017a) Guidelines for Preliminary Ecological Appraisal (2nd ed.). CIEEM, Winchester.

CIEEM (2017b) Guidelines for Ecological Report Writing (2nd ed.). CIEEM, Winchester.

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland (3rd ed.). CIEEM, Winchester.

Collins, J. (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edn. Bat Conservation Trust, London.

The Conservation of Habitats and Species Regulations 2017.

Cresswell, W. and Whitworth, R. (2004) An assessment of the efficiency of capture techniques and the value of different habitats for great crested newts. English Nature Research Reports 576. English Nature, Peterborough.

European Commission. Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.

European Economic Community. Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

Harris, S., Cresswell, P, and Jeffries, D. (1989) Surveying Badgers. Occasional Publication No. 9. The Mammal Society, London.

Ministry of Housing, Communities and Local Government (2019) *National Policy Planning Framework*. Crown Copyright 2019. https://www.gov.uk/government/collections/revised-national-planning-policy-framework

Mitchell-Jones, A.J. (2004) Bat Mitigation Guidelines. English Nature, Peterborough.

Multi-Agency Geographical Information for the Countryside (MAGIC). Crown Copyright and database rights [2019]. Ordnance Survey 100022861. Available at: http://www.magic.gov.uk/

Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000) Evaluating the suitability of habitat for the Great Crested Newts (Triturus cristatus). Herpetological Journal 10: 143-155.

The Protection of Badgers Act (1992).

Rose, F. and O'Reilly, C. (2006) The Wild Flower Key, Revised Edition. Penguin Books, London.

The UK Biodiversity Action Plan. Available: $\underline{\text{http://jncc.defra.gov.uk/page-5155}}$

Wildlife and Countryside Act 1981 (as amended).



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 (Natural Habitats, &c.) Regulations 1994 (SI 1994 No. 2716) (as amended) (known as the Habitats Regulations) and are therefore 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).

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 birdnesting season is defined as being from 1st March until 31st August with exceptions and alterations for some species.



Great Crested Newts: Great crested newts are a European Protected Species, listed on Annex II and IV of the EEC Directive on the Conservation of Natural Habitats and Wild Fauna and Flora, receiving protection under Schedule 2 of The Conservation of Habitats and Species Regulations 2017. 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.

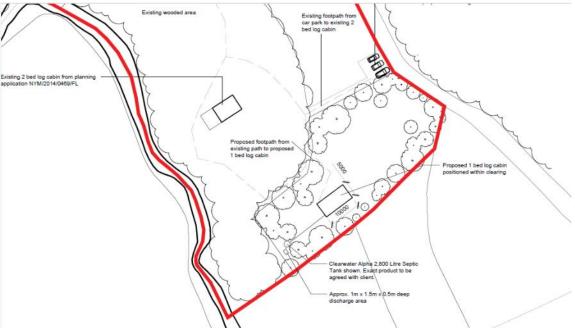
*Reckless offences were added by the Countryside and Rights of Way Act 2000, which applies only to England and Wales.

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

Reptiles: All native British species of reptile (of which there are 6) 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.



8.2 Development Plans



Proposed development plan by Reed Studios.