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Preliminary Ecological Appraisal

- Site: Land at North Park, Halls Farm, Stibb Road, Bude, EX23 9HN
- For: Mr. & Mrs. Drew

Report prepared by: Richard Bates, ACIEEM, BSc(Hons).

September 2023

	Name	Date	Signature
Report prepared by:	Richard Bates, BSc ACIEEM	03.09.23	

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PLEASE NOTE: The contents of this report are based on the latest survey data. Should a period of more than 12 months pass between the issuing of this report and work commencing on a project, an update survey of the site may be required.

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E۶	kecutive Summary
1.	Introduction
2.	Species records
3.	PEA survey methodology7
4.	Results
	4.1 Habitats
	4.1.1 Improved grassland
	4.1.2 Bare ground
	4.2 Bats 10
	4.2.1 Bats – buildings and trees
	4.2.2 Bats – foraging and commuting 11
	4.3 Nesting birds11
	4.4 Reptiles and Amphibians 11
	4.5 Badgers 11
	4.6 Dormice
	4.7 Otters and Water Voles
	4.8 Hedgehogs 12
	4.9 Designated sites 12
5.	Recommendations 12
	5.1 Bats – foraging and commuting 12
	5.2 Nesting birds & Dormice
	5.3 Site enhancements
6.	References14
A	ppendix 1: Legislation (summary)
A	ppendix 2: Phase 1 Habitat Map 17
A	ppendix 4: Site enhancements

Contents

Executive Summary

PEA survey date:	23 rd August, 2023	
Location:	Land at North Park, Halls Farm, Bude, EX23 9HN	
Grid Reference:	SS 22565 09290	
Surveyor:	rveyor: Richard Bates, ACIEEM BSc.	
	Bat licence class 2 ref: 2017-30400-CLS-CLS	
	GCN licence class 1 ref: 2017-27940-CLS-CLS	

Devon & Cornwall Ecology were commissioned to undertake a Preliminary Ecological Appraisal of land at North Park, Halls Farm, Bude. The survey was undertaken to support an application to construct a farm office at the site.

The site occupies an area of approximately 0.05ha and comprises an area of improved grassland field with a bare ground access track only.

Implementing the proposal will result in the loss of the area of improved grassland field. This grassland habitat is common and widespread and as such this loss is not considered a significant ecological impact. Access to the site will be provided through existing access points and as such no linear features, such as hedgerows, will be impacted.

The proposed development will require works close to a hedgerow adjacent to the site. As this hedgerow has potential to support nesting birds recommendations have been included in section 5 to minimise the risk of disturbance.

Nearby linear features (hedgerows/walls on site boundaries) were assessed as having moderate potential to support foraging and commuting bats. The proposed development will not impact on these features directly but may result in disturbance through additional artificial lighting. Recommendations have been made in section 5 to minimise this disturbance.

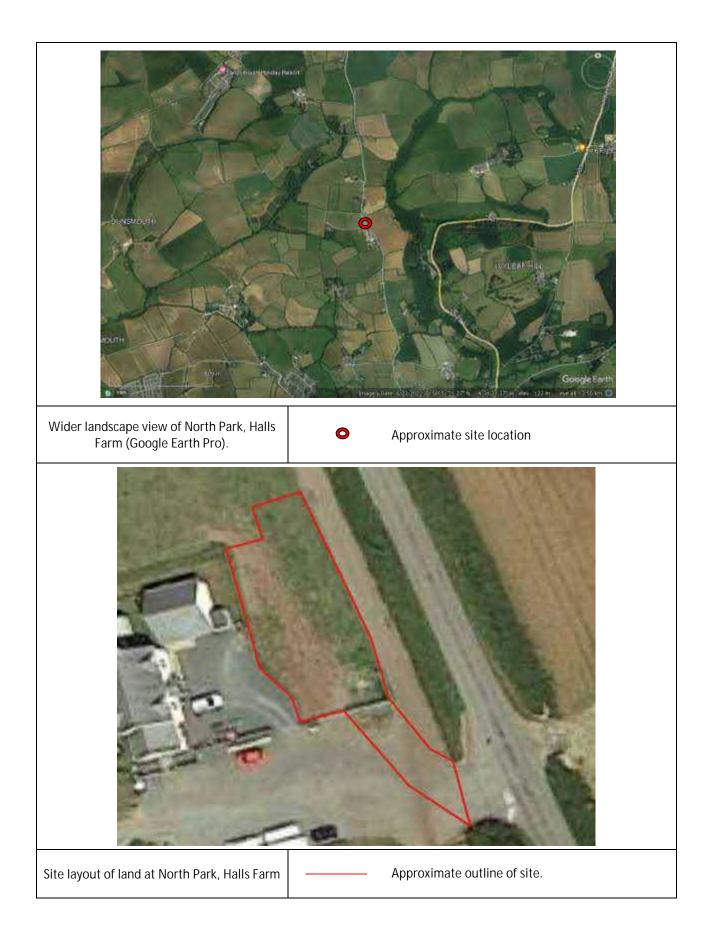
Suggestions for site enhancements have also been included in section 5 to ensure a net gain for wildlife at the site.

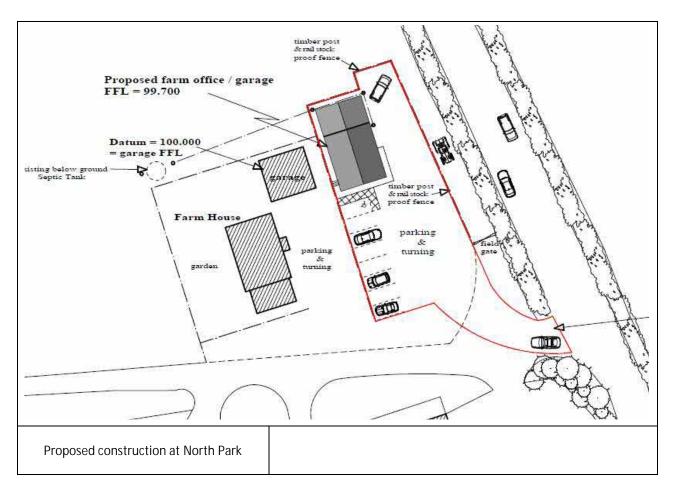
1. Introduction

A preliminary ecological appraisal was conducted on land at North Park, Halls Farm, Bude, on the 23rd August 2023. The survey was undertaken in accordance with the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017), the guidelines presented in the Handbook for Phase 1 Habitat Survey (JNCC, 2010) and the guidelines presented in the Bat Conservation Trust's Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016). It was extended to include fauna species that are protected under legislation or are otherwise notable. The survey was undertaken by Ecologist Richard Bates BSc (Hons) who is an experienced field ecologist and consultant with a licence to survey for bats (2017-30400-CLS-CLS, Level 2). Subject to a Professional Code of Conduct, Richard is an Associate Member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

The survey was undertaken to support an application for the construction of a farm office at the site. The site is in a rural location outside of any significant urban development and occupies an area of approximately 0.05ha, centred on grid reference SS 22565 09290. It comprises an improved grassland field with a bare ground entrance. The site boundaries comprises only a post and rail fence on the west boundary; the remaining boundaries are continuations of the improved field and bare ground, although Cornish hedgerow is located close to the east boundary. In its immediate setting the site is bordered by agricultural buildings to the south, a residence to the west and agricultural fields in all other directions.

In the wider landscape the site is located in a setting that is generally favourable for many protected species; extensive agricultural fields are present in all directions with individual wooded river stream valleys to the north and east. These are likely to provide good foraging and commuting opportunities. No significant urban developments are present within 2km of the site, although the busy A39 main road is located approximately 500m to the east. This road does present a significant barrier to many species. However, overall the site is still considered to have good connectivity to the wider landscape through a network of nearby hedgerows and rural lanes.





2. Species records

A data search of protected species records has not been requested for this development. The proposed development is due impact common and widespread habitats of low ecological value only. Precautions outlined in section 5 mean the development is unlikely to impact on protected species. The majority of boundaries and all neighbouring habitats will remain intact and unaffected by the development. As no lighting measures are proposed, no impacts on bat foraging or commuting opportunities are predicted.

3. PEA survey methodology

Equipment

Camera Binoculars

The entire site was surveyed for protected species, and for the potential for protected species. A habitat map of the site was produced and is available in Appendix 2. Habitat features of interest were also noted; Target Note (TN) descriptions of these features are included in this report and photographs of the site are available in Appendix 3. Consideration was also given to designated sites within a 1km radius of the site. Potential impacts of the development on citation species or habitats were assessed. On site, species looked for included:

Bats: Where access was possible, any buildings were searched internally in all areas and examined externally from the ground. Trees with crevice potential for bats were examined using binoculars.

Breeding Birds: Areas suitable for use by nesting birds in the site and on any buildings were examined and the surveyor looked for evidence of past nest sites.

Reptiles and Amphibians: Habitat features that could be suitable as hibernacula or feeding/resting areas were looked for.

Badgers: Any area that could be used for feeding or could potentially contain a Badger sett was surveyed and any signs noted. Evidence of badger activity, such as latrines, forage marks and trails were noted.

Dormice: Areas with the potential to support dormice, such as hedgerows, woodland and areas of scrub, were noted.

Otters and water voles: Habitats associated with either otters or water voles, such as streams, river banks and other riparian habitat, was inspected for evidence of or potential to support these species.

Legislation relating to the species above can be found in Appendix 1 of this report.

4. Results

4.1 Habitats

The site occupies an area of approximately 0.05ha and comprises an improved grassland field with an area of bare ground forming the entrance. Site access will be provided through an existing point in a hedgerow adjacent to the site. One post and rail fence is present on the west boundary; the remaining site boundaries are continuations of the improved grassland and bare ground. A general description of each habitat is provided below. The site was assessed using the DARFOR scale and a full list of species noted during the survey is available in Appendix 3.

4.1.1 Improved grassland

The site is part of a cattle-grazed improved grassland field, although the area of the field comprising the site appears to be have mown recently rather than grazed. The sward height is maintained at a low level and the flora is species-poor, comprising common and widespread species typical of this type of habitat. The following were noted: frequent perennial rye-grass (Lolium perenne), annual meadow-grass (Poa annua), Yorkshire-fog (Holcus lanatus) and white clover (Trifolium repens), occasional dandelion (Taraxacum officinale agg.) and greater plantain (Plantago major), locally occasional buttercup (Ranunculus repens) and rare occurrences of redshank (Polygonum maculosa) and mouse-ear (Cerastium fontanum).



Photograph 1 – Example view of the improved grassland.

4.1.2 Bare ground

The entrance to the proposed development area comprises a bare ground track and open ground area associated with the neighbouring farm buildings. The ground in this area is regularly disturbed through farm activities; at the time of the survey no vegetation of note was present.



Photograph 2 – Example view of the bare ground entrance.

4.2 Bats

A preliminary inspection of any buildings and trees was undertaken to assess for their potential to support roosting bats. These assessments were based on the criteria set out in Table 1 below, adapted from the Bat Conservation Trust Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins et al, 2016):

	51 5
Confirmed Roost	Evidence of bat occupation found, including live bats, droppings,
	corpses, grease and/or scratch marks and urine staining.
High Roosting Potential	Buildings or trees with significant roosting potential, either because
	they contain a large number of suitable features or the features
	present appear optimal due to their size, shelter, conditions and
	surrounding habitat.
Moderate Roosting Potential	Buildings or trees with one or more potential roosting features that
	may be used by bats but are unlikely to support a roost of high
	conservation status.
Low Roosting Potential	Buildings or trees with few features that may be used opportunistically
	by bats but are unlikely to be used on a regular basis due to the size,
	location, conditions and/or suitability of nearby habitat.
Negligible Roosting Potential	Buildings and trees with negligible suitable features and poor quality
	surroundings.

Table 1 - Criteria for assessing bat roosting potential of buildings and trees

The site was also assessed for potential to support commuting and foraging bats, based on the criteria set out in Table 2 below, adapted from the Good Practice Guidelines (Collins et al, 2016):

Suitability	Description of habitats		
Negligible	Negligible commuting features on site and/or unsuitable foraging		
	features, such as large areas of hardstanding.		
Low	Habitats that could be used by small numbers of commuting bats, such		
	as gappy hedgerows or sites with limited connectivity to the wider landscape.		
	Suitable but isolated foraging habitat that could be used by small numbers of bats, such as small patches of scrub or lone trees.		
Moderate	Continuous commuting habitats connected to the wider landscape, such as a line of trees and scrub or linked residential gardens.		
	Habitat that can be used for foraging and is connected to the wider landscape, such as trees, scrub, grassland and water.		
High	Continuous, high quality habitat with good connectivity to the wider landscape. This would include features such as watercourses, river valleys, hedgerows and woodland edges.		
	High quality foraging habitat that well connected to the wider landscape and likely to be used regularly by bats, such as broadleaved woodland, tree lined watercourses, grazed parkland or sites that are close to and/or connected to known roosts.		

4.2.1 Bats – buildings and trees

No buildings are present at the site. No works are proposed that would affect neighbouring properties or prevent their use by bats. Similarly, no mature or semi-mature trees are present on the site and so no tree roosting potential was recorded. No further survey work is required.

4.2.2 Bats – foraging and commuting

The site boundaries and the habitats surrounding the site were assessed as providing moderate foraging commuting opportunities for bats, based on guidance summarised in Table 4 above. The development will result in the loss of an area of improved grassland only. No other habitats will be lost and the removal of this area is not considered likely to have a significant impact on bats. All existing connectivity along the site boundaries will be retained during and post-construction.

The proposed development is likely to include additional artificial lighting at the site. Recommendations have been included in section 5 to minimise disturbance to foraging and commuting bats from this lighting. Provided these recommendations are adopted, it is unlikely that the proposed development will have any significant impact on bat foraging or commuting and no further survey work is required.

4.3 Nesting birds

The hedgerow adjacent to the east boundary provides suitable nesting opportunities for common bird species. It is likely that works will be undertaken close to this retained hedgerow. As such recommendations have been included in section 5 to minimise the risk of disturbing nesting birds.

4.4 Reptiles and Amphibians

Reptiles

The site was assessed as having negligible to low potential to support common reptile species such as slow-worms (Anguis fragilis) along the edges of the site. However, the extent of this habitat is highly limited and the grassland habitat has not developed the tussocky mounds favoured by common reptile species. It is considered highly unlikely any reptiles are present or would be affected by the proposed development.

Amphibians

As similar to the reptile assessment, survey recorded negligible to low potential for amphibians to be present on site. The adjacent hedgerows provide limited suitable foraging and commuting opportunities.

However, a desktop survey revealed no ponds within 250m of the site. Given the low suitability of the habitat present, low geographical spread of GCN in Cornwall and lack of nearby ponds, it is considered highly unlikely that this protected species is present. Other amphibian species such as toads may be present, but are unlikely to be significantly affected by the proposed development. All key commuting opportunities are due to be retained as part of the proposed development. No further survey work is required.

4.5 Badgers

A full search of the site revealed no evidence of badgers such as latrines, foraging marks, trails or holes. No further surveys are required.

4.6 Dormice

The hedgerows near the site provide foraging and nesting opportunities for dormice. Potential food sources are available from species such as hawthorn, blackthorn and bramble. Although these are limited in abundance, the site is connected to the wider landscape through a network of hedgerows. This connectivity includes an area of woodland and overall the wider landscape has the potential to support dormice.

Given the proposals included the loss of improved grassland only no further survey work is considered necessary at this juncture. The hedges will be retained in their existing conditions and the development will not result in fragmentation of suitable habitat or presented any barriers to dormouse dispersal. However, simple precautions will be undertaken in future to prevent disturbance to this species, as detailed in section 5.

4.7 Otters and Water Voles

The site is considered unsuitable for both otter and water vole. No suitable foraging or refuge habitat is present on site. No further survey work is required.

4.8 Hedgehogs

The site has potential to support hedgehogs, providing moderate foraging and commuting opportunities along the site boundaries. As these mammals are a UK Biodiversity Action Plan (BAP) species and listed as a priority species under Section 41 of the NERC Act (2006), recommendations have been included in section 5 to enhance the site for hedgehogs, primarily through the creation of new habitat.

4.9 Designated sites

A desktop survey for statutory designated sites within a 2km radius was undertaken, extending to 5km for European designated sites. No such sites were returned within these parameters.

As the proposed development is for a single structure associated with the farm, it is considered highly unlikely to have any direct impact on any designated sites, such as through visual or noise disturbance. Similarly, it is considered unlikely the development would have any indirect impacts, such as through groundwater pollution.

Constraints

Full access to the site was available and the survey was undertaken in suitable conditions in August. Although the timing of the survey only provides a seasonal snapshot of the plant species present, the habitats on site are common and widespread. It is unlikely that any plants or habitats of ecological significance have been missed, particularly within the proposed development area.

5. Recommendations

5.1 Bats – foraging and commuting

Bats are sensitive to artificial lighting, which can draw insect prey away from potential foraging areas while simultaneously discouraging bats from foraging and disrupting commuting routes. Currently a lighting plan is unavailable for the site. However, in order to preserve commuting and foraging opportunities, any new exterior lighting will incorporate the following (where applicable) to minimise the potential for light disturbance:

Any construction work on site will be limited to daylight hours only. No artificial use of lighting will be used for construction during the hours of darkness.

5.2 Nesting birds & Dormice

The development may include works close to retained sections of hedgerow. To prevent damage to these hedgerows and minimise disturbance to protected species, the following will be undertaken:

A buffer zone of 2m will be established along the north and west hedgerows. No machinery or material will be stored within this zone and machinery will not be operated in this area.

The provision of this buffer zone will assist in protecting trees from construction related damage, in line with recommendations available in BS5837:2012 Trees in relation to design, demolition and construction (BSI Standards Publication, 2012).

5.3 Site enhancements

As part of the National Planning Policy Framework (2019), local planning authorities aim to secure enhancements for biodiversity for all developments. To achieve this aim the following will be incorporated into the design proposals for this site. Illustrative examples of these enhancements and proposed locations are available in Appendix 3:

One Schwegler 2FR bat tube or similar suitable bat tube/brick will be installed in the wall of the new building. This tube/brick will be located a minimum of 3m from ground level on a south, east or west facing aspect. The tube/brick must not be illuminated directly or indirectly by artificial lighting.

Provision will be made for pollinating insects on site. A number of commercial products are available to 'house' important pollinators such as solitary bee and solitary wasp species. A minimum of one suitable product will be included in the design of the new building to provide nesting opportunities. The provision of nesting opportunities for pollinators will be of benefit to a range of important insect species, the plants they pollinate and the mammals and birds that prey on them.

A minimum of one Schwegler brick nest box or similar garden bird integrated nest box will be installed within a wall of the new building. The box will be positioned as high as possible on the wall, a minimum of 3m from ground level. The boxes will also be located on the north facing wall or sheltered location on the east facing wall - out of the prevailing wind and strong sunlight - to attract common bird species.

If the proposed development includes boundary markers such as walls or fences, any fencing or wall installed will incorporate a ground level hole measuring 13cm by 13cm. The inclusion of a suitably sized hole at ground level will allow small mammals, including hedgehogs, to access the site for foraging and commuting.

6. References

Bat Conservation Trust (2008). Bats and Lighting in the UK: Bats and the Built Environment Series. Bat Conservation Trust.

Bat Conservation Trust & Institute of Lighting Professionals (2018). Bats and Artificial Lighting in the UK. <u>https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting</u>

BSI, (2012). BS 5837:2012 Trees in relation to design, demolition and construction – recommendations. United Kingdom ed. United Kingdom: British Standards Institution.

CIEEM, 2017. Guidelines for Preliminary Ecological Appraisal. Winchester: CIEEM

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

Joint Nature Conservation Committee (2010), Handbook for Phase 1 Habitat Survey – a technique for environmental audit. Joint Nature Conservation Committee, Peterborough.

Natural England (2023). Magic Map. Accessed online on 03.09.23; available at: <u>http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx</u>

Appendix 1: Legislation (summary)

Wildlife Protection legislation

This appendix details the legislation relevant to the protection of species and habitats. It also details the relevant policies within national, regional, and local planning policy.

National Planning Policy Framework (2019)

The National Planning Policy Framework (NPPF) is the Government's vision for biodiversity in England and is considered by local councils during all planning applications where development is proposed. The NPPF has a broad aim that any construction, development or regeneration proposals should maintain and enhance biodiversity, with the aim of securing biodiversity enhancements for all developments in order to facilitate sustainable development.

Biodiversity Action Plans (BAPs): BAPs set out policy for protecting and restoring priority species and habitats as part of the UK's response as signatories to the Convention on Biological Diversity. BAPs operate at both a national and local level with priority species and habitats identified at a national level and a series of Local BAPs that identify ecological features of particular importance to a particular area of the country. The requirement to consider and contribute towards BAP targets was strengthened through the Countryside and Rights of Way (CRoW) Act 2000. Although now superseded by other legislation, the lists drawn up under the BAPs are still valuable reference sources on local and national wildlife priorities.

Natural Environment & Rural Communities (NERC) Act (2006)

The NERC Act 2006 amends the above mentioned CRoW Act, obliging local authorities to include biodiversity considerations in their duties, including in consideration of planning applications. Under Section 41 of the Act, this consideration is based on lists of organisms and habitat types deemed to be of principal importance to in conserving biodiversity. These lists are primarily based on lists created for the UK and local authority BAPs.

Mammals:

Otters, dormice, water voles, and all bat species are fully protected under section 9 (5) of the Wildlife and Countryside Act 1981 (as amended). According to this act it is an offence to:

Intentionally capture, kill or injure one of these animals

- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used by one of these animals for shelter or protection
- Intentionally or recklessly disturb an animal whilst it is using this place
- sell, offer for sale or advertise for one of these animals live or dead

Designated as European Protected Species' otters, dormice, and all bat species receive additional protection from the Conservation of Habitats and Species Regulations 2010, under Schedule 2 which implements the EC Directive 92/43/EEC in the United Kingdom. In accordance with this act, it is an offence to:

Deliberately capture or kill a European Protected Species

Deliberately disturb a European Protected Species Damage or destroy the breeding site or resting place of a European Protected Species

The greater and lesser horseshoe bats, barbastelle and bechstein's bats, are also listed under Schedule 2 of the Conservation of Habitats and Species Regulations. Areas which support populations of these species can therefore be considered for designation as a Special Areas of Conservation (SACs).

Birds:

Please Note: All breeding birds and their nests are protected under the general protection of Section 1 of the Wildlife and Countryside Act, 1981 as amended. This makes it an offence to disturb breeding birds.

Reptiles and Amphibians:

Slow worms, adders, grass snake, viviparous lizard, are protected against intentional killing, injuring or sale under section 9 (1) of the Wildlife and Countryside Act 1981 (as amended).

Great crested newt, natterjack toad, sand lizard and smooth snake are fully protected under section 9 (5) of the Wildlife and Countryside Act 1981 (as amended). These species also receive additional protection as European Protected Species under schedule 2 of the Conservation of Habitats and Species Regulations 2010, which implements the EC Directive 92/43/EEC in the United Kingdom.

Badgers receive protection from the Protection of Badgers Act 1992. According to this act, it is an offence to:

to willfully kill, injure, take, possess or cruelly ill-treat a badger; to attempt to do so; or to intentionally or recklessly interfere with a sett.



Appendix 4: Site enhancements

