



Black Barn, Eckford  
Preliminary Ecological Assessment (PEA)  
*For Ferguson Planning*

6<sup>th</sup> May 2021

South Office  
8 Epsom Close  
Chippenham, Wiltshire  
SN14 0FB

North Office  
292 Portobello High Street  
Edinburgh  
EH15 2AS

07 730 600 924  
[info@ellendale-environmental.co.uk](mailto:info@ellendale-environmental.co.uk)



## Version

VERSION	DATE	AUTHOR	REVIEWED	APPROVED
CIC v1.0	06/05/21	Stewart Parsons	Emma Parsons	06/05/21
CIC v1.1	06/05/21	Stewart Parsons	Emma Parsons	06/05/21

### Disclaimer

Copyright © Ellendale Environmental Limited. All rights reserved.

This report has been produced by Ellendale Environmental Limited within the terms and conditions of the contract with the client and taking account of the resources devoted to it by agreement with the client. It has been prepared for the sole use of the client and their professional advisors.

Ellendale Environmental Limited accepts no responsibility for any use of or reliance on the contents of this report by any third party.

The report, and the information contained in it, is intended to be valid for a maximum of 12 months from the date of the survey, providing no significant alterations to the site have occurred.



# Contents

1.	Executive Summary .....	4
2.	Introduction.....	6
2.1	Commission.....	6
2.2	Site Details .....	6
2.3	Survey Objectives .....	7
3.	Methodology .....	8
3.1	Data Search.....	8
3.2	Extended Phase 1 Habitat Survey .....	8
3.3	Preliminary Protected Species Walkover.....	8
3.1	Preliminary Roost Assessment .....	9
3.2	Survey Area.....	9
3.3	Survey Limitations .....	9
4.	Results .....	10
4.1	Ellendale Environmental.....	10
4.2	Desk Study.....	10
4.3	Extended Phase 1 Habitat Survey .....	11
4.4	Preliminary Protected Species Survey.....	14
4.5	Preliminary Roost Assessment .....	16
5.	Conclusions .....	18
5.1	Conclusion.....	18
5.2	Main Recommendations.....	19
6.	Target Notes .....	21
6.1	Botanical Target Notes (TN) .....	21
6.2	Animal Target Notes (AN).....	22
7.	Extended Phase 1 Habitat Map .....	23



# 1. Executive Summary

Ellendale Environmental Limited was commissioned by Ferguson Planning, on behalf of their client, to undertake a Preliminary Ecological Assessment (PEA) for an area of land at Black Barn, Eckford ('the site'). It is proposed to develop a residential property on the site ('the proposed development').

Surveys undertaken at the site as part of the PEA included an Extended Phase 1 Habitat survey and a Preliminary Protected Species walkover. The Extended Phase 1 Habitat survey was undertaken following a Phase 1 survey methodology (JNCC, 2010) to list the plant species associated with each habitat. The preliminary protected species walkover was conducted for the site and the surrounding area. A Preliminary Roost Assessment (PRA) was also undertaken for a former agricultural barn present on the site.

The site is located to the south of the village of Eckford, which is located between the larger towns of Kelso and Jedburgh in the Scottish Borders. It is 0.35 hectares in size and comprises an area of improved grassland, broadleaf woodland, arable land and a large agricultural barn ('Black Barn').

The grassland within the site does not provide suitable habitat for protected species as it is heavily disturbed and regularly mown. The site is isolated with managed grassland habitat and arable land present on the boundaries that restricts the movement of animals into and out of the site.

The barn present provides the most suitable habitat within the site for nesting birds. Evidence of pigeon was noted throughout the site and evidence of barn owl was found with pellets identified inside and



outside of the barn. No evidence of roosting or breeding barn owl was found during the survey.

Swallow nests were also noted in the barn. These were not active at the time of the survey; however, swallows were noted to be present foraging around the site and they are likely to build nests and breed within the barn.

The barn dominates the site and was found to be in a poor condition. It is exposed to the elements (i.e. wind and rain), through holes in the roof and an open side on the northern elevation reducing the suitability for roosting bats. Damp patches were noted on the floor where water enters the barn.

Internally the surfaces were found to be covered with pigeon guano that was dense in places. The timbers present within the barn were also noted to be damp, with algae present in places from water ingress into the barn structure. No evidence of bat activity was found during the survey and the barn is therefore assessed as providing Negligible Roost Potential.

Overall, the site is assessed as providing low suitability to support protected species and no evidence of protected species was identified during the survey.

Recommendations have been made for modest post-construction ecological enhancements at the site that are proportionate with the low level of environmental impact from the proposed development.



## 2. Introduction

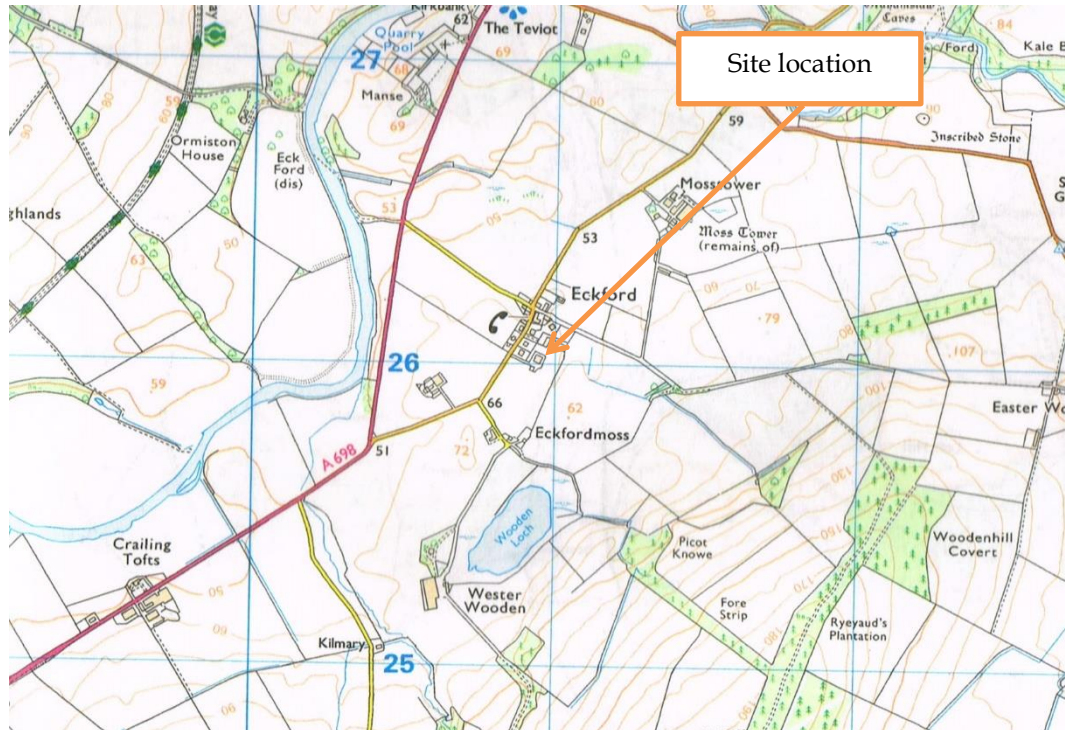
### 2.1 Commission

Ellendale Environmental Limited was commissioned by Ferguson Planning, on behalf of their client, to undertake a Preliminary Ecological Assessment (PEA) for an area of land at Black Barn, Eckford ('the site'). A development of a residential property is proposed for the site ('the proposed development').

### 2.2 Site Details

The site is located to the south of the village of Eckford at OS grid reference NT 7094 2601. Eckford is located between the larger towns of Kelso and Jedburgh in the Scottish Borders.

*Figure 1: Site location*



Reproduced from Ordnance Survey Mapping Map Explorer OL16 Scale 1:25000 by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. Licence number 100054247.



### 2.3 Survey Objectives

On the basis of the brief provided by the client, Ellendale Environmental conducted an ecological survey to fulfil the following needs:

- ☛ Obtain baseline information on the current habitats and ecological features in and around the site;
- ☛ Identify any further specialist surveys that may be required;
- ☛ Identify the presence (or potential presence) of any protected species whose disturbance may require consent under the Wildlife and Countryside Act, 1981 (as amended); and
- ☛ Identify any species or habitats which may require special mitigation during the development of the site.



## 3. Methodology

### 3.1 Data Search

Publicly available databases, including MAGIC and the NBN Atlas, were consulted for historical evidence of:

- ☛ Statutory Land-Based Designations;
- ☛ Non-Statutory Land-Based Designations; and
- ☛ Protected Species.

The data search was conducted within a 2km radius of the site boundaries.

### 3.2 Extended Phase 1 Habitat Survey

An Extended Phase 1 Habitat survey of the site area was undertaken, and the habitats present on the site were mapped following the Phase 1 survey methodology (JNCC, 2010), listing the plant species associated with each habitat. This methodology was an extended Phase 1 habitat survey, whereby all habitats were surveyed and recorded onto a base plan, and any habitats that were considered to be of potential interest to nature conservation were recorded through the use of target notes to annotate a Phase 1 habitat map.

### 3.3 Preliminary Protected Species Walkover

The site and surrounding areas were examined for signs of protected species, particularly badger, as it was considered that the site had the greatest potential to support these species or groups of animals.

The presence/potential presence of protected or notable species of conservation concern was recorded using target notes, following the Chartered Institute of Ecological and Environmental Management guidance (CIEEM, 2012).





### 3.1 Preliminary Roost Assessment

A physical inspection of the barn was undertaken whereby all suitable features were assessed externally and internally. A telescopic surveyor's ladder was used to gain access to various points and a CLU-10 searchlight was used to search dark areas. A Visual Optics VO36-10ww Endoscope was utilised to assist inspection of internal spaces. The survey was undertaken in accordance with the Bat Conservation Trust (BCT) *Bat Survey Guidelines*, 2016.

The physical search included a search for live animals and a search for other signs that give an indication of past or present occupancy.

### 3.2 Survey Area

The survey covered the entire site and areas within 30m (where accessible).

### 3.3 Survey Limitations

The aim of this survey was not to record every species present on the site, as one survey acts as a snap-shot, recording only those species which are present at the time or whose presence can be indicated through the occurrence of field signs, such as feeding remains, droppings or places used for shelter or foraging.

Evidence collected has been used to draw conclusions about the flora and fauna within the boundary of the site and to provide an assessment of their ecological and nature conservation value.

Weather was not a limiting factor to the survey. The prevailing conditions at the time of the survey are summarised in Table 1.

*Table 1: Survey weather conditions*

SURVEY DATE	TEMPERATURE (°C)	WIND SPEED (MPH)	CLOUD COVER / PRECIPITATION
05/05/21	13.2	3.5 Avg. 4.1 Max.	50% cloud cover, dry with occasional breeze.



## 4. Results

### 4.1 Ellendale Environmental

The survey was undertaken by Stewart Parsons, Director and Principal Ecologist of Ellendale Environmental, who is a full member of CIEEM and a Chartered Environmentalist (CEnv). Stewart has over 18 years' professional experience of undertaking ecological surveys across the UK.

Stewart holds a bat survey licence bat survey licence with NatureScot, Bat Roost License Number 36487, valid from 28<sup>th</sup> June 2019 to 30<sup>th</sup> November 2023.

### 4.2 Desk Study

A 2km data search for existing biological records was undertaken from publicly available databases. The following statutory designated sites are located within 2km of the site boundary:

- ☞ The River Teviot, which is part of the River Tweed Special Area of Conservation (SAC) and a Site of Special Scientific Interest (SSSI), is located 565m to the west of the site boundary; and
- ☞ The River Tweed Special Area of Conservation (SAC) is located approximately 1km to the north of the site boundary.

The data search identified no non-statutory designated sites within 2km of the site.

The following protected species were identified within 2km of the site boundaries by the data search:

- ☞ European otter *Lutra lutra*;
- ☞ Badger *Meles meles*;
- ☞ Common pipistrelle bat *Pipistrellus pipistrellus*; and



☞ Brown long-eared bat *Plecotus auritus*.

Approximately 115 bird species have been recorded within 2km of the site and are shown on the NBN Atlas; however, none of these records are for within the site boundaries. There are records for barn owl *Tyto alba* within 2km of the site.

#### 4.3 Extended Phase 1 Habitat Survey

The site is located to the south of the village of Eckford which is located between the larger towns of Kelso and Jedburgh in the Scottish Borders. It is 0.35 hectares in size and comprises an area of improved grassland and a large former agricultural barn ('Black Barn'). Around the west and north of the site there is an area of agricultural land beyond which are residential properties. To the east of the site there is arable land and to the south there is a residential property beyond which is arable land.

The site is accessed via a track with a small area of land adjacent that is dominated by broadleaf woodland and an area of unimproved grassland. An area of land is present to the south of the track and is initially covered in broadleaf woodland with the trees present approximately 10 years old. Species present include blackthorn *Prunus spinosa*, holly *Ilex aquifolium*, hazel *Corylus avellana* and oak *Quercus robur*. A small area of the woodland at the entrance to the site has been cleared and a large pile of brash is present with willow herb *Epilobium spp.* and common nettle *Urtica dioica* dominating the area.

At the east of the site entrance there is an area of semi-improved neutral grassland with species present including cock's-foot grass *Dactylis glomerata*, willowherb, broadleaved dock *Rumex obtusifolius*, white dead-nettle *Lamium album*, garlic mustard *Alliaria petiolata* and lesser celandine *Ranunculus ficaria*. It is understood that the grassland is mown throughout the summer months.



*Photograph 1: showing a view of the site entrance (looking west)*



The main area of the site is dominated by Black Barn, a former agricultural barn that is now disused and in a poor condition with area of the roof having fallen in. The barn is surrounded by a strip of improved neutral grassland that is managed through mowing and was short at the time of the survey. Species present include daisy *Bellis perennis*, perennial rye-grass *Lolium perenne*, ribwort plantain *Plantago lanceolata*, dandelion *Taraxacum officinale* agg., yarrow *Achillea millefolium*, common nettle, garlic mustard, meadow foxtail *Alopecurus pratensis*, cock's-foot grass, white dead nettle and ragwort *Senecio jacobaea*.

The site is surrounded by a stock proof fence with scattered scrub present including hawthorn and snowberry *Symphoricarpos albus*.

To the west of the site is an area of arable land.



*Photograph 2: showing a view of the site*



*Photograph 3: showing a view of the grassland around the barn*





#### 4.4 Preliminary Protected Species Survey

The grassland within the site does not provide suitable habitat for protected species as it is heavily disturbed and regularly mown. The site is isolated with managed grassland habitat and arable land present on the boundaries that restricts the movement of animals into and out of the site.

The barn present provides the most suitable habitat on site for nesting birds. Evidence of pigeon *Columba palumbus* was noted throughout the site and the internal surfaces of the barn were covered in guano. Several pigeon carcasses were found inside the barn. Barn owl *Tyto alba* pellets were found both inside and outside of the barn; however, no evidence of roosting or breeding barn owl was found during the survey.

*Photograph 4: Barn owl pellets identified on the east side of the barn*



Swallow *Hirundo rustica* nests were also noted within the barn. These were not active at the time of the survey; however, swallows were



noted to be present foraging around the site and they are likely to build nests within the barn.

*Photograph 5: Showing a view of a swallow nest within the barn*



The grass present around the barn is too short to provide suitable habitat for common reptiles and amphibians and no evidence of refugia or hibernacula was found during the survey. A brash pile identified at the entrance to the site was understood to have been created recently and anecdotal evidence collected during the survey indicated it is being removed from the site.

No evidence of badger activity was found during the survey.

Overall, the site is assessed as providing low suitability to support protected species and no evidence of protected species was identified during the survey.



#### 4.5 Preliminary Roost Assessment

Black Barn dominates the site and is approximately 25m long by 25m wide, constructed from a timber frame. The walls are comprised of brick and corrugated metal sheets and the roof is pitched covered with corrugated cement sheets, some of which were noted to have fall into the building.

The barn was found to be in a poor condition and is exposed to the elements (i.e. wind and rain), through holes in the roof and an open side on the northern elevation reducing the suitability for roosting bats. Damp patches were noted on the floor where water enters the barn.

*Photograph 6: Showing a view inside the barn*



Internally the surfaces were found to be covered with pigeon guano that was dense in places. The timbers present within the barn were also noted to be damp with algae present in places.





The walls of the building were found to be in a good condition with no cracks or crevices present where bats could roost. No evidence of bat activity, such as dropping or feeding remains, was found on the walls during the survey.

The roof structure of the barn provides few opportunities for roosting bats and suitable areas were noted to be covered in pigeon guano that would deter bats from roosting. Dense cobwebs were noted in places and the timbers were found to be wet from water ingress into the building.

*Photograph 7: Showing a view the barn roof*



No evidence of bat activity was found and the barn is not considered to be suitable for roosting bats. It is therefore assessed as providing Negligible Roost Potential for bat species.



## 5. Conclusions

### 5.1 Conclusion

The site is located to the south of the village of Eckford which is located between the larger towns of Kelso and Jedburgh in the Scottish Borders. It is 0.2 hectares in size and comprises an area of improved grassland, broadleaf woodland, arable land and a large agricultural barn.

The grassland within the site does not provide suitable habitat for protected species as it is heavily disturbed and regularly mown. The site is isolated with managed grassland habitat and arable land present on the boundaries that restricts the movement of animals into and out of the site.

The barn present provides the most suitable habitat on site for nesting birds and evidence of pigeon was noted throughout the site. Evidence of barn owl was found with pellets identified inside and outside of the barn; however, no evidence of roosting or breeding barn owl was found during the survey.

Swallow nests were also noted within the barn. These were not active at the time of the survey; however, swallows were noted to be present foraging around the site and they are likely to build nests and breed within the barn.

The barn dominates the site and was found to be in a poor condition. It is exposed to the elements (i.e. wind and rain), through holes in the roof and an open side on the northern elevation reducing the suitability for roosting bats. Damp patches were also noted on the floor where water enters the barn.

Internally the surfaces were found to be covered with pigeon guano and this was dense in places. The timbers present within the barn were also noted to be damp with algae present in places from water ingress



into the barn structure. No evidence of bat activity was found during the survey and the barn is therefore assessed as providing Negligible Roost Potential.

Overall, the site is assessed as providing low suitability to support protected species and no evidence of protected species was identified during the survey.

## 5.2 Main Recommendations

The following recommendations are made for modest post-construction ecological enhancements at the site which are proportionate with the low level of environmental impact from the proposed development:

- ☛ As part of any eventual construction, it is recommended that vegetation clearance is undertaken outside of the bird breeding season, i.e., March to July, as all nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended). If nesting birds are found, these areas of the site will need to be protected from disturbance until the young have fledged naturally.
- ☛ Barn owl nest boxes should be erected in suitable locations nearby in the landscape and fitted to trees or poles to provide nesting opportunities for barn owl post-construction. Alternatively, a barn owl nesting space could be incorporated as part of the building design.
- ☛ As part of the design and layout considered, bird nesting boxes (both small-hole and open-fronted) should be placed within the site if possible. This will create nesting opportunities for small bird species as part of the overall design.
- ☛ Swift boxes should be incorporated into the structure of the new building as part of the design and layout considered.
- ☛ As part of the design and layout considered, bat boxes should be placed on or around the site boundaries if possible. This could



create roosting opportunities for bat species as part of the overall design.

- ☛ As part of the design and layout, the BCT guidance on bats and artificial lighting should be considered.



## 6. Target Notes

### 6.1 Botanical Target Notes (TN)

TN1 – An area of felled woodland that has been recently cleared.

TN2 – An area of broadleaf woodland with the trees present that are approximately 10 years old. Species present include blackthorn, holly, hazel and oak. A small area of the woodland at the entrance to the site has been cleared and a large pile of brash is present with willow herb and common nettle dominating the area.

TN3 – An area of semi-improved neutral grassland with species present including cock's-foot grass, willowherb, broadleaved dock, white dead-nettle, garlic mustard and lesser celandine.

TN4 – An area of ephemeral / short perennial vegetation in a turning areas / access to the barn.

TN5 – A strip of improved neutral grassland that is managed through mowing and was short at the time of the survey. Species present include daisy, perennial rye-grass, ribwort plantain, dandelion, yarrow, common nettle, garlic mustard, meadow foxtail, cock's-foot grass, white dead nettle and ragwort.

TN6 – Scattered hawthorn scrub along the boundary fence.

TN7 – Scattered hawthorn and snowberry scrub along the boundary fence.

TN8 – Black Barn dominates the site and is approximately 25m long by 25m wide, constructed from a timber frame. The walls are comprised of brick and corrugated metal sheets and the roof is pitched covered with corrugated cement sheets, some of which were noted to have fall into the building.



TN9 - Scattered hawthorn scrub along the boundary fence.

TN10 - A strip of improved neutral grassland that is managed through mowing and was short at the time of the survey. Species present include daisy, perennial rye-grass, ribwort plantain, dandelion, yarrow, common nettle, garlic mustard, meadow foxtail, cock's-foot grass, white dead nettle and ragwort.

## 6.2 Animal Target Notes (AN)

AN1 - Suitable habitat for nesting birds in the hedgerow along the roadside.

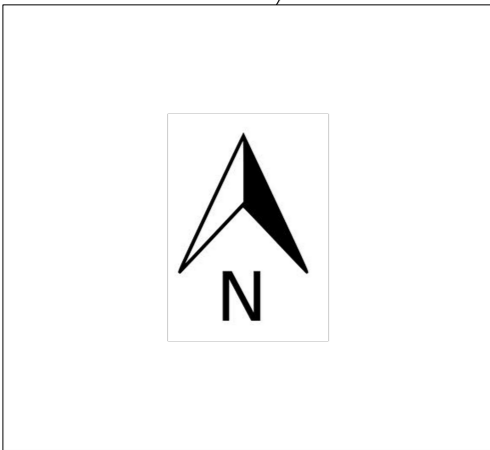
AN2 - Suitable habitat for nesting birds in the broadleaf woodland block.

AN3 - lack barn provides suitable habitat for nesting birds. Pigeon, swallow and barn owl were all noted during the survey.

AN4 - Barn owl pellets were found on the outside of the barn.



## 7. Extended Phase 1 Habitat Map



**Drawing Title;**  
Black Barn, Eckford  
Extended Phase 1 Map

**Client;**  
Ferguson Planning

**Date;**  
06/05/21

**Drawn By;**  
SP

**Project Number;**  
EEL365

**Version Number;**  
v1.0



- Target Note**
  - TN
- Animal Note**
  - AN
- Water**
  - Dry Ditch
- Miscellaneous**
  - Hedgerow
  - Ephemeral / Short perennial
  - Tall ruderal
- Built-up Area**
  - Fence
  - Hard Standing
  - Building
- Woodland and Scrub**
  - Felled Woodland
  - × Scattered Scrub
  - Broadleaf Woodland
  - Region
- Grassland**
  - Semi-improved Neutral Grassland