



Nenthorn, Kelso  
Preliminary Ecological Assessment (PEA)  
*For Ferguson Planning*

14<sup>th</sup> June 2021

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## Version

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CIC v1.0	06/06/21	Stewart Parsons	Emma Parsons	07/06/21
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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.



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# 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 Nenthorn, Kelso ('the site'). A development of a residential property is proposed for 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.

The site is located to the west of the village of Nenthorn, approximately 5km north-west of Kelso in the Scottish Borders. It is 0.4 hectares in size and comprises an area of arable land.

The arable land within the site is regularly disturbed, which reduces the amount of suitable habitat available for protected species. No evidence of ground nesting birds or badger activity was found during the survey.

No suitable habitat for common reptiles and amphibians, such as refugia or hibernacula, was found during the survey. Strips of ruderal vegetation along the boundaries of the site may provide some limited habitat; however, these are regularly managed through mowing.

The hedgerow to the south and overgrown trees to the east of the site provide the most suitable habitat to support protected species, namely nesting birds.



There are no trees suitable to support roosting bats or large bird species within the site boundaries. Furthermore, no trees will be lost as part of the proposed development.

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

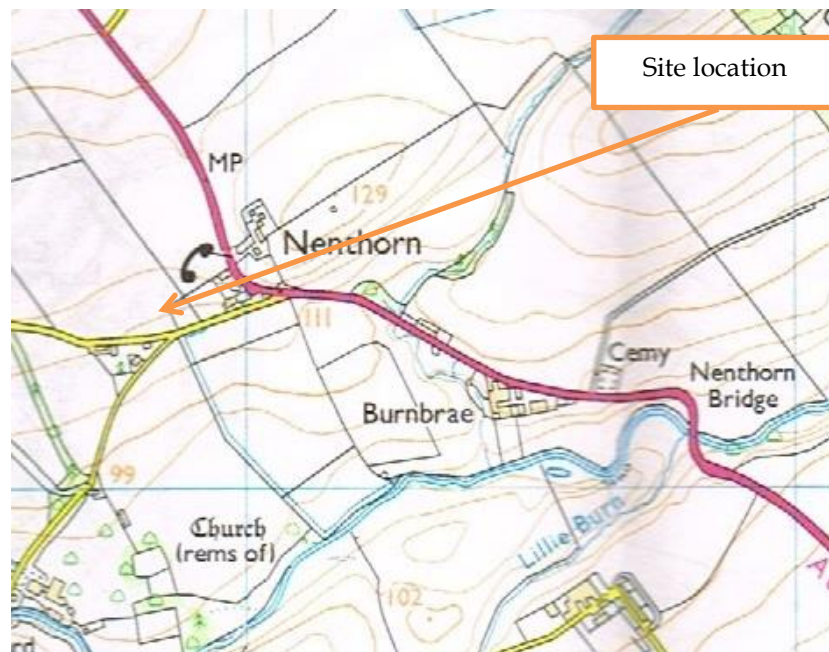
### 2.1 Commission

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 Nenthorn, Kelso ('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 west of the village of Nenthorn, a parish and hamlet in the south of the county of Berwickshire in the Scottish Borders area of Scotland at OS grid reference NT 67850 37301. Nenthorn is located approximately 5km northwest of Kelso.

*Figure 1: Site location*



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### 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).





### 3.4 Survey Area

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

### 3.5 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
27/05/21	16.6	0.1 Avg. 1.2 Max.	100% cloud cover, dry and humid with occasional breeze.

### 3.6 Surveyor

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 with NatureScot, Bat Roost License Number 36487, valid from 28<sup>th</sup> June 2019 to 30<sup>th</sup> November 2023.



## 4. Results

### 4.1 Desk Study

A 2km data search for existing biological records was undertaken from publicly available databases.

The following statutory designated site is located within 2km of the site boundary:

- ☛ Lurgie Loch Site of Special Scientific Interest (SSSI) is located 1.9km 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 water vole *Aroicola amphibius*;
- ☛ Otter *Lutra lutra*;
- ☛ Badger *Meles meles*;
- ☛ Noctule bat *Nyctalus noctula*;
- ☛ Nathusius's Pipistrelle *Pipistrellus nathusii*;
- ☛ Common pipistrelle bat *Pipistrellus pipistrellus*;
- ☛ Soprano Pipistrelle *Pipistrellus pygmaeus*; and
- ☛ Brown long-eared bat *Plecotus auritus*.

Approximately 77 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.



#### 4.2 Extended Phase 1 Habitat Survey

The site is located to the west of the village of Nenthorn, approximately 5km north-west of Kelso in the Scottish Borders. It is 0.4 hectares in size and comprises an area of arable land. To the south of the site there is a species-poor hedgerow with a ditch and strip of roadside tall ruderal vegetation. To the east there is a strip of overgrown mixed woodland.

*Photograph 1: showing a view of the site (looking north-east)*



The main area of the site is dominated by arable land used for growing barley *Hordeum vulgare*. Around the edges of this field there is an area of tall ruderal vegetation, approximately 1m wide, with species present including cock's-foot grass *Dactylis glomerata*, willow herb *Epilobium sp*, broadleaved dock *Rumex obtusifolius*, white dead-nettle *Lamium album*, Yorkshire fog *Holcus lanatus*, spear thistle *Cirsium vulgare*, dandelion *Taraxacum officinale agg.* and cow parsley *Anthriscus sylvestris*.



*Photograph 2: showing a view of the southern boundary of the site*



Along the southern boundary of the site there is a thick hedgerow with species present including beech *Fagus sylvatica* and hawthorn *Crataegus monogyna*. The hedgerow is managed through cutting with ivy *Hedera helix* and common nettle *Urtica dioica* present along the base of the hedge.

To the south of the hedgerow there is a roadside ditch that was flowing at the time of the survey following recent rain. A strip of tall ruderal vegetation is also present with species including common nettle, willow herb, meadow foxtail *Alopecurus pratensis*, dandelion, creeping buttercup *Ranunculus repens*, white dead-nettle, broadleaf dock, silverweed *Potentilla anserina* and clover *Trifolium pratense*.



*Photograph 3: showing a view along the southern boundary of the site*



Along the eastern boundary of the site there is an area of mixed trees with species present including leylandii *Cupressus × leylandii*, elder *Sambucus nigra*, dogwood *Cornus sanguinea*, dog-rose *Rosa canina*, ash *Fraxinus excelsior* and sycamore *Acer pseudoplatanus*. A barbed wire fence is also present along this boundary.

Beyond the north and west of the site boundary there is further arable land.



### 4.3 Preliminary Protected Species Survey

The arable land within the site is regularly disturbed which reduces the amount of suitable habitat available for protected species. No evidence of ground nesting birds was found during the survey; however, the site may provide some suitable habitat following harvest when birds may forage within the site.

The hedgerow to the south and overgrown trees to the east of the site provide the most suitable habitat to support protected species, namely nesting birds.

There are no trees suitable to support roosting bats or large bird species within the site boundaries. No trees will be lost as part of the proposed development.

*Photograph 4: showing a view of the eastern boundary of the site*





No suitable habitat for common reptiles and amphibians, such as refugia or hibernacula, was found during the survey. The strips of ruderal vegetation along the boundaries of the site may provide some limited habitat; however, these are regularly managed through mowing.

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.



## 5. Conclusions

### 5.1 Conclusion

The site is located to the west of the village of Nenthorn, approximately 5km north-west of Kelso in the Scottish Borders. It is 0.2 hectares in size and comprises an area of arable land. To the south there is a species-poor hedgerow with a ditch and strip of roadside tall ruderal vegetation. To the east there is a strip of overgrown mixed woodland.

The arable land within the site is regularly disturbed, which reduces the amount of suitable habitat available for protected species. No evidence of ground nesting birds or badger activity was found during the survey.

No suitable habitat for common reptiles and amphibians, such as refugia or hibernacula, was found during the survey. The strips of ruderal vegetation along the boundaries of the site may provide some limited habitat; however, these are regularly managed through mowing.

The hedgerow to the south and overgrown trees to the east of the site provide the most suitable habitat to support protected species, namely nesting birds.

There are no trees suitable to support roosting bats or large bird species in the site boundaries. Furthermore, no trees will be lost as part of the proposed development.

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.
- ☛ 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 – Arable field used for growing barley.

TN2 – A strip of tall ruderal vegetation, approximately 1m wide, with species present including cock's-foot grass, willow herb, broadleaved dock, white dead-nettle, Yorkshire fog, spear thistle, dandelion. and cow parsley.

TN3 – Dense hedgerow containing hawthorn and beech. Ivy and common nettle are present along the base of the hedge.

TN4 – A roadside ditch that was flowing at the time of the survey following recent rain. A strip of tall ruderal vegetation is also present with species including common nettle, willow herb, meadow foxtail, dandelion, creeping buttercup, white dead-nettle, broadleaf dock, silverweed and clover.

TN5 – A strip of tall ruderal vegetation, approximately 1m wide, with species present including cock's-foot grass, willow herb, broadleaved dock, white dead-nettle, Yorkshire fog, spear thistle, dandelion. and cow parsley.

TN6 – An area of mixed trees with species present including leylandii, elder, dogwood, dog-rose, ash and sycamore.

### 6.2 Animal Target Notes (AN)

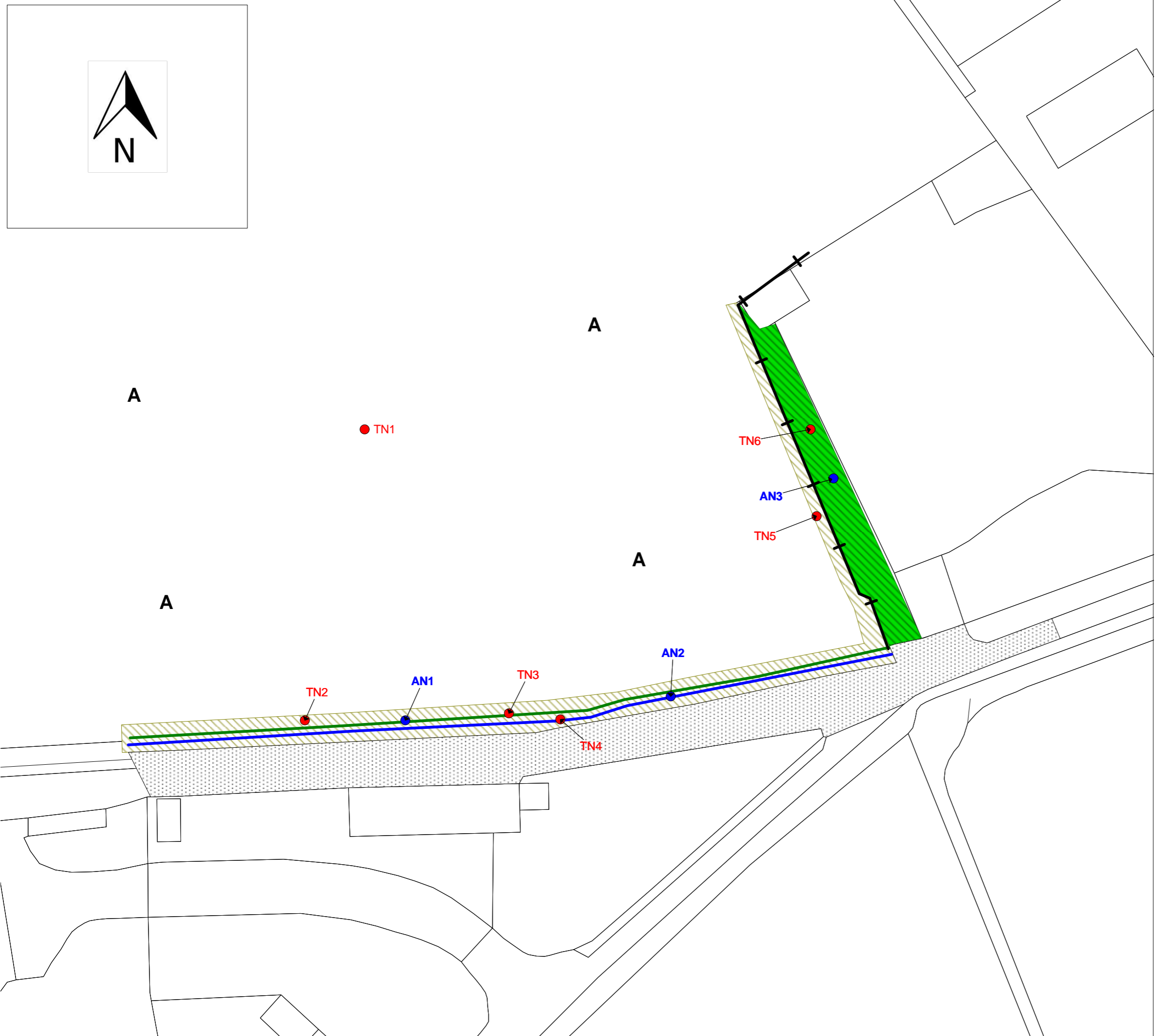
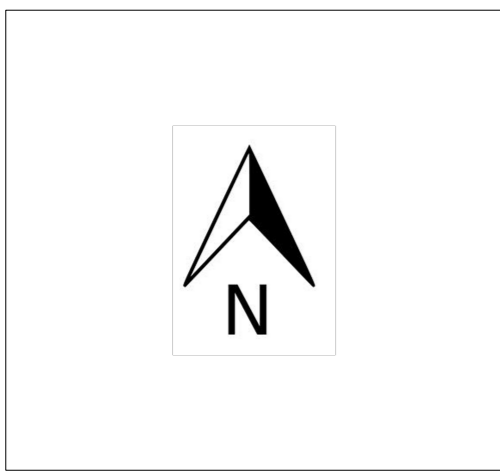
AN1 – Suitable habitat for breeding birds in the dense hedgerow.

AN2 – No evidence of water vole or otter along the drainage ditch. It is likely to be seasonally dry through the summer months.

AN3 – Suitable habitat for breeding birds in the mixed woodland.



## 7. Extended Phase 1 Habitat Map



**Drawing Title;**  
Nenthorn, Kelso  
Extended Phase 1 Map

**Client;**  
FMJ Forster

**Date;**  
07/06/21

**Drawn By;**  
SP

**Project Number;**  
EEL371

**Version Number;**  
v1.0

- Target Note
  - TN
- Animal Note
  - AN
- Woodland and Scrub
  - Mixed Woodland
- Water
  - Ditch
- Built-up Areas
  - Hedgeorw
  - Hard Standing
- Tall Herb and Fern
  - Tall Ruderal