ELLENDALE
ENVIRONMENTAL

New House Farm, Malmesbury
Preliminary Ecological Assessment (PEA)

For LP Planning

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Version

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Executive Summary

Ellendale Environmental Limited was commissioned by LP Planning, on behalf of their client, to undertake a Preliminary Ecological Assessment (PEA) for an area of land and associated buildings at New House Farm, Pink Lane, Charlton, Malmsbury, SN16 9DS ('the site'). It is proposed to redevelop the buildings to provide residential properties within 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 Phase 1 Habitat survey was undertaken to list the plant species associated with each habitat and the preliminary protected species walkover was conducted for the site and the surrounding area. A Preliminary Roost Assessment was also undertaken for the buildings present on site.

The site is located at New House Farm, situated along a farm track access from Pink Lane and comprises a range of agricultural buildings and associated hard standing, and small areas of grassland verges. There are two Phase 1 habitat types, including boundary features, on the site, namely built-up areas (buildings and hard standing/bare earth) and neutral grassland.

The site provides few opportunities for protected species as it comprises hard standing, bare earth and agricultural buildings that were all in use during the survey.

The buildings provide some habitat for protected species, namely nesting and foraging birds. A number of passerine species were noted during the survey; however, no nests were found during the survey.

The grassland habitat within the site does not provide suitable habitat for common reptiles or amphibians, and no evidence was found during the survey. The site is also surrounded by heavily managed grassland areas and this will restrict the movement of animals into and out of the site. No suitable refugia or hibernacula were found to be present during the survey.

No evidence of bats was found in the buildings present on site during the survey. Gaps were noted around structure of all of the buildings and all of the buildings were open allowing in wind and rain. Buildings 1 and 3 are constructed from metal frames which do not provide habitat for roosting bats. Building 2 was open on two sides with a breeze noted through the structure during the survey.

No evidence of bat activity was found in the buildings, and they are assessed as proving Negligible Roost Potential for bat species. No further surveys for bats are recommended.

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.

1. Introduction

1.1 Commission

Ellendale Environmental Limited was commissioned by LP Planning, on behalf of their client, to undertake a Preliminary Ecological Assessment (PEA) for an area of land and associated buildings at New House Farm, Pink Lane, Charlton, Malmsbury, SN16 9DS ('the site'). It is proposed to redevelop the buildings to provide residential properties within the site ('the proposed development').

1.2 Site Details

The site is located to the north of Charlton, a village in North Wiltshire, approximately two miles (3km) north-east of Malmsbury and four miles (6.4km) north-west of the village of Brinkworth, at OS grid reference ST 99330 87448.

Figure 1: Site location



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1.3 Survey Objectives

On the basis of the brief provided by the client, Ellendale Environmental conducted an ecological survey of the site and a 50m buffer (where accessible and appropriate) 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 Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) or 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.

2. Methodology

2.1 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 and notable species.

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

2.2 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.

2.3 Preliminary Protected Species Walkover

The site and surrounding areas were examined for signs of protected species, particularly bats and nesting birds, as it was considered that the site had the greatest potential to support these species.

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).

2.4 Preliminary Roost Assessment

All suitable features of the buildings 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 physical search included a search for live animals and a search for other signs that give an indication of past or present occupancy. In the case of bats, typical indicators include droppings (which are characteristic and can often be speciated), signs of staining, characteristic odours, and accumulations of prey items.

2.5 Survey Area

The survey covered the entire site and areas within 50m (where accessible and appropriate).

2.6 Survey Limitations

The aim of the 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
31/10/22	12.3	5.4 Avg. 7.2 Max.	50% could cover, dry with a constant breeze.

2.7 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.

3. Results

3.1 Desk Study

A 2km data search for existing designated sites and biological records was undertaken from MAGIC and the NBN Atlas.

Statutory Designated Sites

There are no statutory designated sites located within 2km of the site.

Non-Statutory Designated Sites

There are no non-statutory designated sites within 2km of the site boundaries.

Protected and Notable Species

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

- Brown hare *Lepus europaeus* (7 records, the closest of which is located 0.9km north-west of the site, recorded in 2022).

The following bat species were identified within 5km of the site boundaries by the data search:

- Daubenton's bat *Myotis daubentonii* (18 records, all located 4.5 south-west of the site, recorded in 2022);
- Noctule bat *Nyctalus noctula* (two records, the closest of which is located 4km north-east of the site, recorded in 2021);
- Common pipistrelle *Pipistrellus pipistrellus* (five records, the closest of which is located 2.1km north-west of the site, recorded in 2021); and
- Soprano pipistrelle *Pipistrellus pygmaeus* (one record, located 4km north-east of the site, recorded in 2021).

Bird Species

Approximately 116 bird species have been recorded within 2km of the site and are shown on the NBN Atlas; however, none of these records are within the site boundaries.

3.2 Extended Phase 1 Habitat Survey

The site is located at New House Farm, situated along a farm track access from Pink Lane. The site comprises a range of agricultural buildings and associated hard standing, and small areas of grassland verges.

To the north of the site there further buildings and hard standing, beyond which is agricultural land. To the east, south and west there is agricultural land mostly used for the grazing of sheep.

There are two Phase 1 habitat types, including boundary features, on the site, namely:

- J3 Built-up areas (buildings and hard standing/bare earth); and
- B2.2 Neutral grassland (semi-improved);

J3 Built-up areas (buildings and hard standing/bare earth)

The site is accessed via a farm track that leads to a site beyond the site which comprises agricultural buildings used for the storage of straw and sheep. Around the buildings there is hard standing and bare earth that is regularly used.

B2.2 Neutral grassland (semi-improved)

Areas of neutral grassland are present around the boundaries of the site and which are managed through mowing with some grazing from the adjacent land. At the time of the survey the grassland sward height was tall with ruderal species including perennial rye-grass *Lolium perenne*, ribwort plantain *Plantago lanceolata*, willow herb *Epilobium sp.*, *Cirsium sp.* daisy *Bellis perennis,* creeping thistle *Cirsium arvense*, dandelion *Taraxacum officinale agg.* cock's-foot grass *Dactylis glomerata* and creeping buttercup *Ranunculus repens*.

Photograph 1: showing a view of the site



3.3 Preliminary Protected Species Walkover

The site provides few opportunities for protected species as it comprises hard standing, bare earth and agricultural buildings that were all in use during the survey.

The buildings provide some habitat for protected species, namely nesting and foraging birds. A number of passerine species were noted during the survey; however, no nests were found during the survey.

The grassland habitat within the site does not provide suitable habitat for common reptiles or amphibians, and no evidence was found during the survey.

Furthermore, the site is surrounded by heavily managed grassland areas and this will restrict the movement of animals into and out of the site. No suitable refugia or hibernacula were found to be present during the survey.

Photograph 2: showing a grassland around the edge of the site



No evidence of mammal species, such badger *Meles meles*, was found during the survey. The adjacent habitat is suitable to support badger; however, the regular use of the site will likely restrict their movement into the site.

There are no trees present within the site.

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

3.4 Preliminary Roost Assessment

There are three buildings present within the site and were surveyed as part of the Preliminary Roost Assessment (PRA). The buildings include a storage barn, lean-to animal shelter and former cow barn as shown in Figure 2.

Figure 2: Building plan



Building 1

Building 1 is a large modern agricultural barn constructed from a metal frame with a mix of wooden timbers on the sides of the building and metal cement sheets on the roof. The building is open on the south side; however, gaps were noted to be present around the entire structure.

No evidence of bat activity was found in Building 1 and it is assessed as providing Negligible Roost Potential for bats. The building is open allowing in wind and rain which makes the building cold and unsuitable for bats that require dry and stable conditions for roosting.

No further surveys for bats are recommended for Building 1.

Photograph 3: showing a view of Building 1



Building 2

Building 2 is an old pole barn constructed from old telegraph poles and covered with corrugated metal sheets. The building is open on the north and south sides with the east and west sides abutting Buildings 1 and 3. At the time of the survey, the building was being used for keeping sheep with pens constructed from fencing.

No evidence of bat activity was found in Building 2 and it is assessed as providing Negligible Roost Potential for bats. The building is open allowing in wind and rain which makes the building cold and unsuitable for bats that require dry and stable conditions for roosting.

No further surveys for bats are recommended for Building 2.

Photograph 4: showing a view of Building 2



Building 3

Building 3 is a L-shaped building and was formerly a cow barn. The building is constructed from a metal frame and has been clad in timber on the walls with a pitched corrugated tin roof. Open doorways on the south and east side provide access to the internal spaces of the barn. The western end of the building is used for the storage of material whist the rest of the building was mostly empty at the time of the survey.

Photograph 5: showing a view of Building 3



Gaps were noted around the building that would allow in wind and rain making the internal species cold and damp and therefore unsuitable for roosting bats. The roof structure of the building is constructed from metal beams that do not provide habitat

for roosting bats. No loft space or suitable gaps or crevices were noted that would be suitable for roosting bats.

No evidence of bat activity was found in Building 3 and it is assessed as providing Negligible Roost Potential for bats. The building is open allowing in wind and rain which makes the building cold and unsuitable for bats that require dry and stable conditions for roosting.

No further surveys for bats are recommended for Building 3.

Photograph 6: showing a view inside of Building 3



Overall, the buildings present on the site are not assessed as providing suitable habitat for bat species and no evidence was found during the survey. No further surveys for bats are recommended.

4. Conclusions

4.1 Conclusion

The site is located at New House Farm, situated along a farm track access from Pink Lane and comprises a range of agricultural buildings and associated hard standing, and small areas of grassland verges. There are two Phase 1 habitat types, including boundary features, on the site, namely built-up areas (buildings and hard standing/bare earth) and neutral grassland.

The site provides few opportunities for protected species as it comprises hard standing, bare earth and agricultural buildings that were all in use during the survey.

The buildings provide some habitat for protected species, namely nesting and foraging birds. A number of passerine species were noted during the survey; however, no nests were found during the survey.

The grassland habitat within the site does not provide suitable habitat for common reptiles or amphibians, and no evidence was found during the survey. The site is surrounded by heavily managed grassland areas and this will restrict the movement of animals into and out of the site. No suitable refugia or hibernacula were found to be present during the survey.

No evidence of bats was found in the buildings present on site during the survey. Gaps were noted around all of the buildings and they were all were open allowing in wind and rain. Buildings 1 and 3 are constructed from metal frames which do not provide habitat for roosting bats. Building 2 was open on two sides with a breeze noted throughout the structure during the survey.

No evidence of bat activity was found in the buildings, and they are assessed as proving Negligible Roost Potential for bat species. No further surveys for bats are recommended.

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

4.2 Suggested Biodiversity Enhancements

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

1] As part of the design and layout considered, bird nesting boxes (both small-hole and open-fronted) should be placed within the site or built into the structure of the new building(s) where possible. This will create nesting opportunities for small bird species as part of the overall design.

2] As part of the design and layout considered, bat boxes should be placed within the site or incorporated into the new building(s) where possible. This will create roosting opportunities for bat species as part of the overall design.

3] Lighting at the site will be in accordance with *Bats and Artificial Lighting* (Institute of Lighting Professionals, 2018) and the lighting layout will be advised and agreed by an ecologist prior to installation.

In order to lessen the effects of external lighting, the following will also be applied to lighting used within the site:

- Hoods or baffles will be used to direct the light downwards to reduce light pollution of the night sky; and
- Low-intensity lighting and warmer hues (i.e., warm white, yellow, or amber) will be used where practicable as they emit a dull glow.

Measures to reduce negative impacts of lighting on wildlife are also likely to be beneficial in reducing adverse impacts on people.

In addition, there could be opportunity for creating valuable habitat within the site by planting a hedge along the boundaries of the site. Local native species of flowering and fruiting shrubs should be used to provide habitat and a food source for a number of species. Species including hazel *Corylus avellana,* dog-rose *Corylus avellana*, hawthorn *Corylus avellana* and holly *Ilex aquifolium* could be used. Climbing plants,

such as honeysuckle *Lonicera periclymenum*, could also be used to provide an early food source for pollinators.

5. Target Notes

5.1 Target Notes (TN)

TN1 – Hard standing and bare earth at the entrance to the site and around the buildings.

TN2 – A strip of neutral grassland along the boundary of the site.

TN3 – Buildings present on the site.

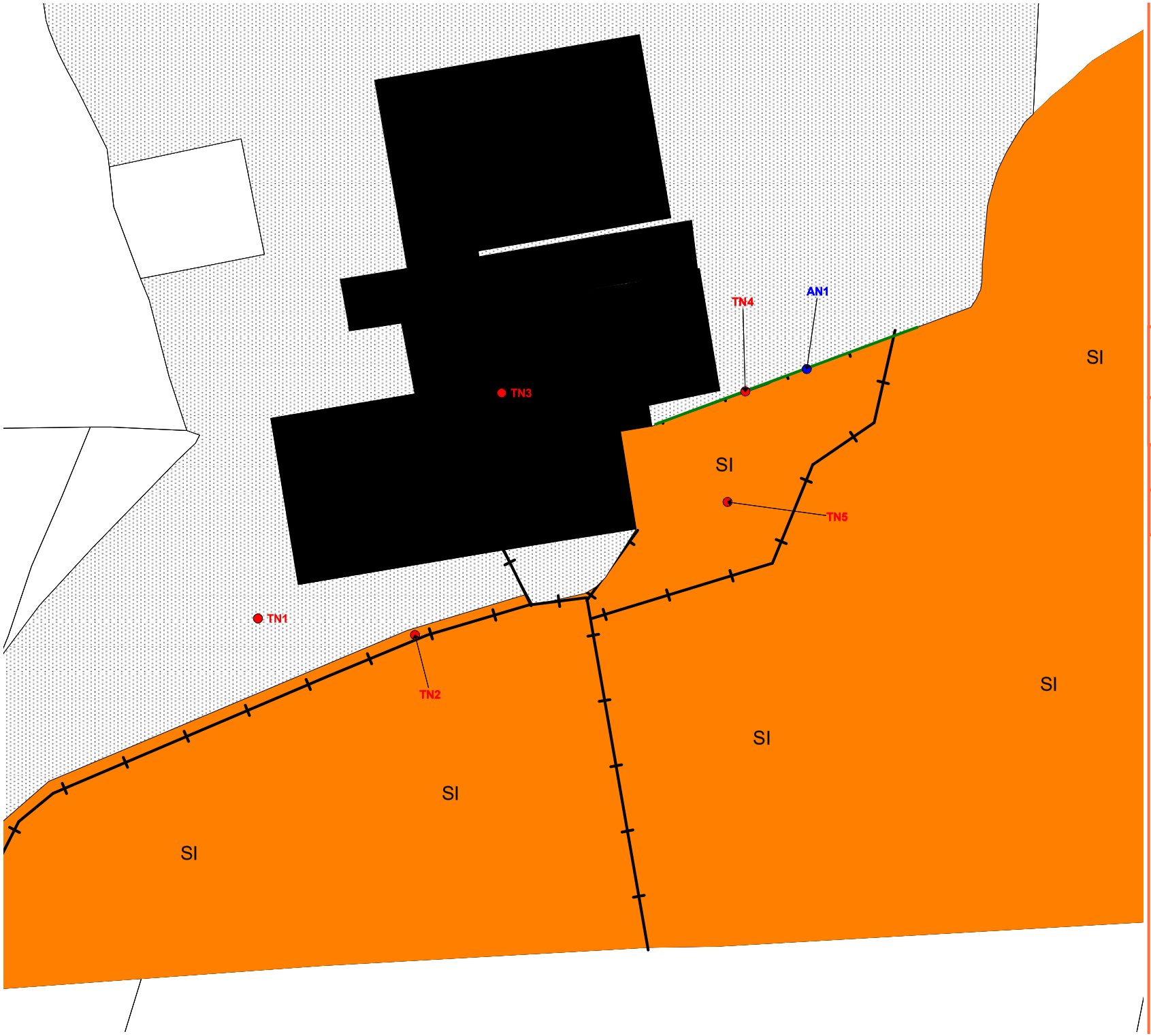
TN4 – A specie spoor hedgerow adjacent to the target buildings and out with the site boundary.

TN5 – Adjacent agricultural land grazed by sheep and comprising of neutral grassland.

5.2 Animal Notes (AN)

AN1 – The specie poor hedgerow provides limited foraging and nesting habitat for bird species and is heavily disturbed by the adjacent land use.

6. Extended Phase 1 Habitat Map



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Drawing Title;
New House Farm
Extended Phase 1 Map

Client;
LP Planning

Date;	**Drawn By;**
06/12/22	**SP**

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Target Note
- TN

Animal Note
- AN

Built-up Area
- Fence
- Hedgerow
- Building(s)
- Hard Standing/Bare Earth

Grassland
- Neutral Grassland (Semi-improved)