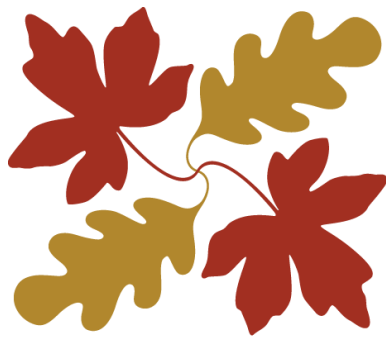




ELLENDALE
ENVIRONMENTAL

2 Lydiard Green, Lydiard Millicent
Preliminary Ecological Assessment (PEA)

For Mr. John Stubbs

24th July 2024

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Version

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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. Introduction

1.1 Commission

Ellendale Environmental Limited was commissioned by Willis & Co. (Chartered Town Planners), on behalf of their client Mr John Stubbs, to undertake a Preliminary Ecological Assessment (PEA) for an area of land at 2 Lydiard Green, Lydiard Millicent, Hook, Wiltshire, SN5 3LP ('the site'). It is proposed to redevelop the site to provide three residential dwellings ('the proposed development').

1.2 Site Details

The site is located to the west of Lydiard Green, a small village in the county of Wiltshire. It is situated approximately four miles west of the town of Swindon, at OS grid reference SU 08332 86083.

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 (5km for bats) radius of the site boundaries.

2.2 Phase 1 Habitat Survey

A Phase 1 Habitat survey of the site 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 a 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 Roost Assessment (PRA)

An inspection of the buildings within the site was undertaken, looking for evidence of bats, bat roosting sites and possible bat access/egress points.

In examining the buildings for bats, particular attention was given to any crevice in which bats may roost. These were inspected for bat droppings, bat urine, feeding remains, oil staining from the fur of bats (indication of frequent use of a particular site), and wear of substrates caused by the movement of bats in and out over a long period of time.

2.4 Preliminary Protected Species Walkover

The site and surrounding areas were examined for signs of protected 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).



2.5 Survey Area

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

2.6 Survey Limitations

The aim of this survey was not to record every species present on the site, as one survey acts as a snapshot, 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
18/07/24	15.7	Avg. 0.4 Max. 2.5	40% cloud cover with an occasional light breeze.

2.7 Surveyor

The survey was undertaken by Phil Quinn, a field ecologist and associate of Ellendale Environmental, who is a full member of CIEEM. Phil has over 35 years' professional experience of undertaking ecological surveys across the UK.



3. Results

3.1 Data Search

A 2km data search for existing designated sites and biological records was undertaken from MAGIC¹ and the NBN Atlas².

Statutory designated sites

Restrop Farm and Brockhurst Wood Site of Special Scientific Interest (SSSI) is located 500m west of the site boundary.

Non-statutory designated sites

The following non-statutory designated sites are located within 2km of the site boundary:

- Great Western Community Forests (the site is located within this non-statutory designated site); and
- West Thames, drinking water safeguard zone (surface water, the site is located within this non-statutory designated site).

Priority and notable habitats

The following protected and notable habitats are located within 2 km of the site:

- Lowland meadows– one parcel, located 400m west of the site;
- Ancient and semi-natural woodland – multiple parcels, the closest of which is located 1.1km west of the site;
- Deciduous woodland – multiple parcels, the closest of which is located 400m south-west of the site; and
- Wood-pasture and parkland – one parcel, located 1.7km south-east of the site.

¹ Magic database. <http://www.magic.gov.uk/MagicMap.aspx> Accessed on 09/07/24.

² NBN Atlas database. [NBN Atlas - UK's largest collection of biodiversity information](#) Accessed on 09/07/24.



Protected and notable species

The following European protected species licence applications were identified within 2km of the site boundaries (5km for bats):

- Three bat licences (covering common pipistrelle *Pipistrellus pipistrellus*, brown long-eared bat *Plecotus auritus* and soprano Pipistrelle *Pipistrellus pygmaeus*), the closest of which is approximately 900m south-east of the site, which is valid to 31/01/25; and
- One great crested newt *Triturus cristatus* licence, approximately 800m south-east of the site, which was valid to 12/09/2012.

West European hedgehog *Erinaceus europaeus*, great crested newt (GCN), brown hare *Lepus europaeus* and Eurasian badger *Meles meles* are known to be present within 2km of the site; however, due to licensing restrictions, the location of these species cannot be disclosed.

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

- Brown long-eared bat ³ (one record, located 1.7km north, recorded in 2018); and
- Lesser horseshoe bat *Rhinolophus hipposideros*⁴ (two records, the closest of which is located 3.6km north, most recently recorded in 1990).

Soprano pipistrelle, Common pipistrelle and noctule bat *Nyctalus noctula* are known to be present within 5km of the site: however, due to licensing restrictions, the location of this species cannot be disclosed.

³ NBN Trust (2024). *Plecotus auritus* on the NBN Atlas: [Plecotus auritus](https://www.nbnatlas.org/species/Plecotus_auritus) on The National Biodiversity Network (NBN) Atlas. <https://ror.org/00mcxye41> [Page visited 2024-07-19].

⁴



Bird species

Approximately 102 bird species have been recorded within 2km of the site and are shown on the NBN Atlas; however, none have been recorded within the site boundary.

3.2 Phase 1 Habitat Survey

The site is a commercial premises, rectangular in shape with a very slight westerly aspect and is situated within the Lydiard Green area of Lydiard Millicent parish in Wiltshire. The site's northern and eastern boundaries are hedgerows, whilst its southern and western boundaries are fences, with the southern boundary also incorporating the stumps of numerous dead trees. Private residential properties bound the site to the south, west and east, whilst to the north there is a species-poor permanent pasture.

The site predominantly comprises single storey structures and sealed surfaces. There are small areas of managed and unmanaged poor semi-improved grassland and small areas of tall ruderal vegetation along with some ephemeral/short perennial vegetation. A managed species-poor hedgerow forms the site's northern boundary, whilst a tall unmanaged hedgerow with associated dry shallow ditch forms the site's eastern boundary.

In the east of the site there are two locked shipping containers which are used as stores, and in the same area are several parked vehicles.

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

- J.3.6 Buildings;
- J.4 Bare ground/hardstanding;
- J.1.3 Ephemeral/short perennial;
- B.6 Poor semi-improved grassland;
- C.3.1 Tall ruderal;
- J.3 Hedgerow; and
- J.2.3.4 Fence.



1.3.6 Buildings

There are four structures on the site and three of these were formerly chicken sheds but were converted approximately twenty years ago for storage and office space. The fourth structure comprises a double garage which is used for storage. These buildings are discussed further in Section 3.3.

1.4. Bare ground/hardstanding

The majority of the site comprises sealed surfaces of tarmac and concrete. Much of the ground is used for car parking, storage of material and deliveries to the industrial units.

Photograph 1: showing hard standing within the site





J.1.3 Ephemeral /short perennial and tall ruderal

There are occasional cracks in these surfaces where ephemeral/short perennial vegetation is found; species such as annual meadow-grass *Poa annua*, groundsel *Senecio vulgaris*, squirrel-tail fescue *Vulpia bromoides*, daisy *Bellis perennis* and dandelion *Taraxacum officinale* agg.

B.6 Poor semi-improved grassland

There are three narrow strips of this plant community on the site, one to the west of 'Building 1', one on the southern edge of the northern boundary hedgerow, and a third on the eastern side of 'Building 2'. The latter two strips are regularly mown but the first strip is managed.

Species recorded here are primarily common grasses such as perennial rye-grass *Lolium perenne*, meadow-grasses *Poa spp.*, non-native fescues *Festuca spp.*, Yorkshire fog *Holcus lanatus*, false oat-grass *Arrhenatherum elatius* (western-most strip only) and herbs such as daisy, dandelion, lesser trefoil *Trifolium dubium*, common cat's-ear *Hypochaeris radicata*, common mouse-ear *Cerastium fontanum*, greater plantain *Plantago major*, selfheal *Prunella vulgaris*, and black medick *Medicago lupulina*.



Photograph 2: narrow strip of poor semi-improved grassland to the west of Structure B1



C.3.1 Tall ruderal

There are several small areas on this site where tall ruderal vegetation has established; these are primarily areas where building materials have been stored for some time. False oat-grass is common in these areas, along with spear thistle *Cirsium vulgare*, herb bennet *Geum vulgare*, ivy *Hedera helix*, creeping thistle *Cirsium arvense*, common ragwort *Senecio jacobaea*, herb Robert *Geranium robertianum* and nettle *Urtica dioica*. Nettle is also locally abundant in the north-eastern corner of the site.

J.3 Hedgerow

The northern boundary of the site is a 4m tall and 2-3m wide managed hedgerow which was planted approximately twenty to thirty years ago, and which incorporates four young trees of a similar age. All the woody species are native, with hazel *Corylus avellana*, field maple *Acer campestre*, dogwood *Cornus sanguinea* and hawthorn *Crataegus monogyna* being common.



Elder *Sambucus nigra*, English elm *Ulmus procera*, guelder rose *Viburnum opulus*, dog rose *Rosa canina* agg., ash *Fraxinus excelsior*, wild cherry *Prunus avium* and English oak *Quercus robur* are also present, along with bramble *Rubus fruticosus* agg. The hedge base flora is largely restricted to nettle, ivy and herb Robert.

Photograph 3: showing a view of the northern boundary hedge (looking north-west)



The eastern boundary of the site comprises a shallow and narrow dry ditch with no aquatic, riparian or emergent plant species. Along the eastern bank of the ditch there are several semi-mature trees and bushes which appear to be unmanaged. Ash, goat willow *Salix caprea*, osier *Salix viminalis*, crack willow *Salix fragilis* and field maple are predominant here. The ground flora is dominated by ivy and nettle. The site's vehicular access is located within the northern part of the hedge and a 12m section of the hedge immediately north of this entrance is proposed for removal to improve access.



Photograph 4: showing a view of the eastern boundary hedgerow (looking south-east)



A Portugal laurel *Prunus lusitanica* is planted along the western side of the site's western boundary fence and is growing on an adjacent property. The site's south-eastern boundary is a fence on a low bank with many stumps of cut Leyland cypress *Chamaecyparis leylandii*.

On the south-eastern side of the entrance driveway there is a trimmed cypress hedge approximately 3m tall and with a wooden panel fence to its rear.

1.2.3.4 Fence

The other boundaries of the site comprise wooden panel fences except the southern and eastern boundaries of the site's access track (to the south of the main site) where there are sections with no boundary features.



3.3 Preliminary Roost Assessment

There are four structures on this site and three of these were formerly chicken sheds but were converted approximately twenty years ago for storage and office space. The fourth structure comprises a double garage which is used for storage.

Figure 2: showing the buildings on site



Building 1

The smallest structure on the site this is a double garage constructed from concrete blocks with a pebble-dash exterior coating and two metal up-and-over doors in its western elevation. There is a double-pitched roof with concrete slates over roofing felt supported by joists and beams. In the northern elevation there is a door which leads to a small paint room and in the southern elevation there is a small, glazed window.



There are beams running across the interior of the garage at a height of approximately 3m and over these there is boarding which effectively creates a ceiling; however, there are several large areas where boarding is not present and the interior of the garage can thus not be described as having two voids or being single void. The roofing felt under the slates is generally in good condition.

Photograph 5: showing the western elevation of Building 1



The interior of the garage is used for the storage of low value building materials and is in regular use, with electric lighting being on whilst the garage is in use; thus, there is a high degree of artificial illumination throughout the day, albeit at irregular periods.

This structure is in good condition although there are small gaps below the slates on the lower north-western part of the roof.



Photograph 5: showing the interior of Building 1



Building 2

A former chicken shed converted into offices, this single storey structure has timber walls and a double-pitched metal corrugated roof. There is a small roof void but this offered no physical access for survey. Several windows are present in the eastern and western elevations, as well as single windows in the northern and southern elevations. Two small doors are present in the eastern elevation. Within the building there is a narrow central corridor with several offices to either side. All rooms within this building are in active daily use.



Photograph 5: showing the northern and eastern elevations of Building 2



Building 3

This was also formerly a chicken shed and is constructed from timber with a double pitched corrugated metal panel roof but is notably larger than Building 2. The southern half of this building is similar in appearance to Building 2 with the arrangement of windows and in having a central corridor with offices running off from this corridor. There is also a small but inaccessible roof void here.

However, the northern half of Building 3 differs markedly in that it has been increased in height by approximately 2m and is clad on its external elevations by tiles of a roofing felt-type material. This northern half of Building 3 is used for the storage of ad-hoc materials and is largely a single void in regular diurnal use and well-illuminated by artificial lighting. There is no ceiling here.



On the north-western side of this large void there is a narrow corridor with two offices running off it and above these offices the void of the large store area is continued. The double pitched roof is of corrugated metal sheeting

Photograph 6: showing the western elevation of Building 3 (looking north)



Building 4

Of similar size to the southern half of Building 3, this building has not been altered and thus has uniform dimensions throughout. It has timber walls and a corrugated metal double-pitched roof. In the northern elevation there is a large up-and-over garage door which is sealed shut, in addition to a smaller door and a small window. The smaller door and window are associated with a small storeroom. There are numerous windows in both the eastern and western elevations. The majority of this structure comprises a single void which was inaccessible for survey.



Photograph 7: showing the northern and eastern elevations of Building 4



3.4 Preliminary Protected Species Walkover

The site and surrounding habitats were examined for signs of protected and notable species and the following assessment has been made for the potential for these species to be present.

3.4.1 Protected Species

Birds

The hedgerow habitat around the boundaries of the site provide the most suitable habitat to support protected species, namely nesting birds. The vegetation provides suitable habitat to support nesting and foraging passerine species and common bird species were observed during the survey.



Badger

The habitats present within the site is mainly hardstanding which is heavily disturbed and therefore unsuitable to support badger. No evidence of badger such as tracks, digging or latrines was found to indicate that setts are present within the site and no runs were seen into or out of the vegetation. It is therefore considered that badger are not using the site.

Bats

None of the structures present on site have any potential to support roosting bats and no evidence of bat activity such as droppings or feeding remains was found. The buildings are therefore assessed as providing Negligible Roost Potential for bat species.

The hedgerow and woodland boundaries of the site provide suitable foraging and commuting corridors for bats, which also provide access and connectivity to the surrounding landscape.

Otter

There is no habitat present on the site to support otter *Lutra lutra* and this species is not considered to be present.

Water vole

There is no habitat present on the site to support water vole *Arvicola amphibius* and this species is not considered to be present.

Great crested newt

There are no waterbodies present on the site that could support breeding amphibians such as GCN which are not known to be present within the local area and there is no suitable terrestrial habitat within the site to provide commuting or foraging habitat for this species.

The hedgerow boundaries may provide some cover for GCN for commuting; however, these were noted to be managed and therefore may be unsuitable.



3.4.2 Notable Species

Common reptiles and amphibians

No ponds or suitable waterbodies are present within the site that could support breeding amphibians and there is no suitable terrestrial habitat within the site to provide commuting or foraging habitat for common reptiles or amphibians.

The hedgerow boundaries may provide some cover for Common reptiles and amphibians for commuting; however, these were noted to be managed and therefore may be unsuitable.

West European hedgehog

No evidence of this species was recorded, but the hedgerows around the site boundary have the potential to offer shelter, as well as foraging and commuting opportunities, for this species.



4. Conclusions

4.1 Conclusion

The hedgerow boundaries provide the most suitable habitat to support protected species, namely nesting birds. The vegetation provides suitable habitat to support nesting and foraging passerine species and common bird species were observed.

There are no waterbodies within the site that could support species such as GCN or common amphibians. The woodland and hedgerows, provide some habitat for the terrestrial life stage of amphibians, as well as common reptile species which could also use the boundary habitat; however, no evidence of these species was found.

No evidence of badger was found during the survey and the habitats present are unsuitable to support this species. The site is heavily disturbed, and this will likely deter badger from the site.

None of the structures or trees present on site have any potential to support roosting bats and no evidence of bat activity such as droppings or feeding remains was found. The structures and trees are therefore assessed as providing Negligible Roost Potential for bat species.

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

4.2 Mitigation

Site personnel should be made aware of protected species and if any are recorded on site, all works should stop, and a suitably qualified ecologist contacted.

Nesting birds

Should any vegetation of the site require removing, this should be undertaken out with the breeding bird season (March – August, inclusive), as all nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended).



If works are undertaken within this period, a nesting bird survey would be required no more than 24 hours prior to the works. If nesting birds were found, these areas of the site would need to be protected from disturbance until the young have fledged naturally.

Bats

Given the findings of the survey, it is very unlikely that bats are roosting in the buildings however, it is advised that precautionary working methods are undertaken during the works, including:

- Site personnel will be made aware of the potential presence of bats through a toolbox talk;
- If a bat is found, or the presence of bats is suspected, all work must stop immediately, and a licensed bat worker must be contacted for advice;
- Bats must not be handled under any circumstances; and
- An ecologist will assess a potential roost space (if identified/found) and inform Natural England of the proposed actions to be undertaken.

4.3 Suggested Biodiversity Enhancements

The following recommendations are made for modest post-construction ecological enhancements at the site, as part of the overall design, which are proportionate with the low level of environmental impact from the proposed development.

It is important that, where possible, opportunities to create new ecological features or enhance existing ones are fully explored. The following measures would benefit the development by introducing ecological enhancements and should be encouraged:

- Planting of native shrubs in appropriate areas of the site, such as the boundaries, will bolster the existing habitat and provide connectivity between existing habitats. Species beneficial to wildlife include hawthorn, hazel, holly *Ilex aquifolium* and cherry *Prunus avium*;
- Bird nesting boxes (both small-hole and open-fronted) should be placed within the site to create nesting opportunities for small bird species; and
- Bat boxes should be placed on or around the site boundaries or incorporated within the building(s), if possible, to create roosting opportunities for bat species.



It is recommended that an ecologist contributes to any detailed landscape designs, planting lists and post-construction management to ensure a biodiversity net gain for the site.



5. Target Notes

5.1 Botanical Target Notes (TN)

TN1 – Hardstanding access to the site.

TN2 – Hardstanding providing access and parking.

TN3 – Small strip of poor semi-improved grassland running through the site.

TN4 – Building 1, a garage structure used for storage.

TN5 – An area of ruderal vegetation established on the hardstanding.

TN6 – Building 2, a former chicken shed converted into offices.

TN7 – A hedgerow along the boundary of the site with some trees present.

TN8 – Building 3, a former chicken shed converted into offices.

TN9 – Ephemeral/short perennial vegetation established on the hardstanding.

TN10 – Building 4, mostly used for storage.

TN11 – Hardstanding providing access, parking and storage.

TN12 – A hedgerow along the boundary of the site with some trees present.

TN13 – A small area of ruderal vegetation around the site boundary.

TN14 – A temporary structure present on the site.

TN15 – Scattered trees along the site boundary.

5.2 Animal Target Notes (AN)

AN1 – The hedgerow boundary provides suitable habitat for nesting birds.

AN2 – No evidence of bat activity was found on Building 1 and it is not assessed as a bat roost.

AN3 – Ruderal vegetation may provide some foraging habitat for bird species.



AN4 – No evidence of bat activity was found on Building 2 and it is not assessed as a bat roost.

AN5 – No evidence of bat activity was found on Building 3 and it is not assessed as a bat roost.

AN6 – Ephemeral/short perennial vegetation may provide some foraging habitat for bird species.

AN7 – No evidence of bat activity was found on Building 4 and it is not assessed as a bat roost.

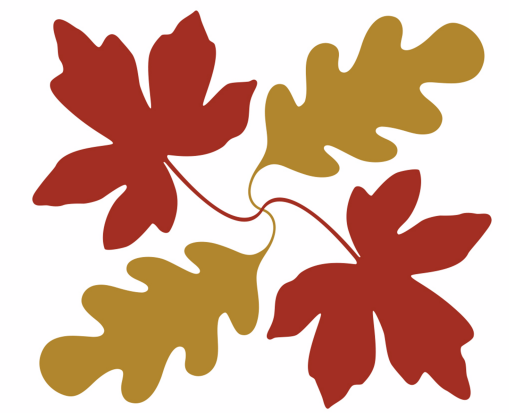
AN8 – Material stored may provide some cover for animal species, mainly birds.

AN9 – The hedgerow boundary provides suitable habitat for nesting birds.

AN10 – The trees along the boundary of the site provide suitable habitat for nesting birds.



6. Extended Phase 1 Habitat Map



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Drawing Title;
Lydiard Millicent
Extended Phase 1 Map

Client;
Willis and Co. Chartered Town Planners

Date;
25/07/24

Drawn By;
SP

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v1.0

Target Note

● TN

Animal Note

● AN

Grassland

□ Poor Semi-improved Grassland

Woodland and Scrub

● Scattered Tree

Miscellaneous

—+— Fence

—+— Hedgerow (Coniferous)

■ Building/Structure

□ Bare Earth/Hard Standing

□ Ephemeral/short perennial

Tall Herb and Fern

▨ Tall Ruderal

