CHALKHILL
environmental
consultants





PRELIMINARY ECOLOGICAL APPRAISAL

LAND AT OLD NETHERMORE PIT
NAISH HILL
LACOCK
CHIPPENHAM WILTSHIRE SN15 2QH

Client:	Mr J Whitmarsh
Project Ecologist:	Jan Freeborn
Contract:	Q878
Survey date:	24 February 2024

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SUMMARY SHEET	
Date of survey:	24 February 2024
OS grid ref:	ST 94813 68637

Findings:

- The site surveyed was an area of hard standing in use as a light industrial area. Six structures were present.
- Small areas of modified grassland were present together with native and non-native hedges and mature trees on the site boundaries.
- The site was approximately 2563 square metres in area including the existing site access track.
- The site was located in a rural location at GB grid reference
- This preliminary ecological appraisal was carried out to assess the ecological impact of an application to demolish the existing buildings and to construct a replacement building on the site.
- No evidence of roosting bats was found in any of the buildings on the site which lacked potential bat roost features and points of potential crawling and flying access for bats.
- No evidence of breeding birds including barn owls was found on survey.
- No habitat likely to support common reptile species, particularly slow worms, was found on survey.
- No habitat of ecological significance or with statutory designations was present within the site although within a 100 metre radius were areas of ancient woodland and Priority Habitat Deciduous Woodland.
- Shrubby and climbing vegetation present may support breeding birds.

Conclusions:

- No bat activity surveys are necessary.
- No habitat of ecological significance will be lost as a result of the proposed work.
- There is a low risk of negative impact on bats and other nocturnal wildlife species resulting from increased spillage of domestic lighting from the new development.
- There is a low risk of negative impact on breeding birds.
- There is a low risk of negative impact on an adjacent area of Priority Habitat Deciduous Woodland as a result of the proposed work, boundary hedges and small areas of improved grassland and shrubby vegetation on the site.
- The biodiversity of the site will be enhanced if provision for bats and breeding birds is made as part of the new development.

Recommendations:

- Precautionary guidance should be followed to avoid disturbance to breeding birds during the proposed work.
- A lighting strategy should be drawn up to minimise the negative impact of domestic light spillage on bats and other nocturnal wildlife species.
- A construction and ecological method statement should be drawn up to avoid the risk of negative impact on the adjacent woodland, hedges and small areas of grassland and shrubby vegetation.

Biodiversity net gain

- There will be species specific biodiversity net gain if bird and bat boxes, one of each, are built into suitable elevations of the building to be constructed on the site

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CONTENTS

1 Introduction
- **Figure 1 Map view of site indicated by red circle**
- **Figure 2 Aerial view of site indicated by red circle**

2 Methodology

3 Survey results
- **Figure 3 Aerial image of site local context**
- **Figure 4 Annotated aerial view of site with boundaries indicated by red line**

4 Discussion and Analysis of Results

5 Conclusions

6 Recommendations

7 Biodiversity net gain
refer Appendix 5 Suggested suitable built in bird and bat boxes

8 Appendices

- **Appendix 1 Site photographs**
- **Appendix 2 Designated sites within a 2 kilometres radius of the site surveyed**
- **Appendix 3 Summary legislation relating to bats**
- **Appendix 4 Summary of legislation relating to breeding birds**
- **Appendix 5 Suggested suitable built in bird and bat boxes**

PRELIMINARY ECOLOGICAL APPRAISAL

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1 Introduction

Figure 1 Map view of site indicated by red circle

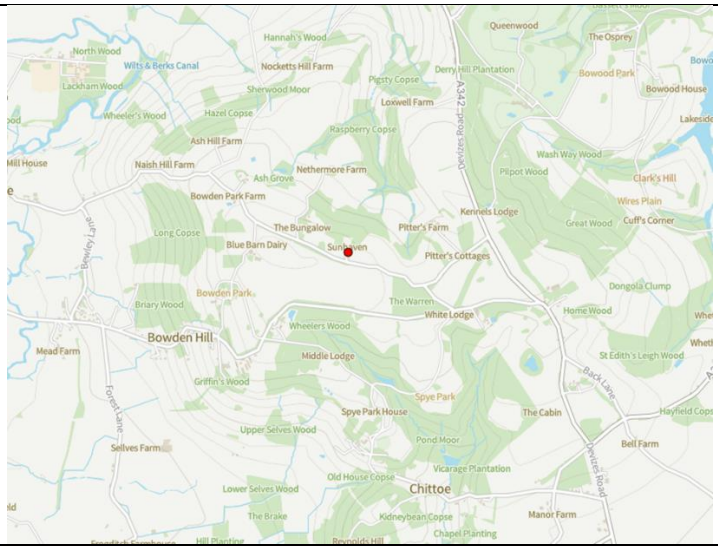


Figure 2 Aerial view of site indicated by red circle



1.1 A planning application PL/2023/09648 has been made to demolish the buildings surveyed and to construct a replacement on the site.

1.2 A Preliminary Ecological Appraisal was therefore carried out to assess the ecological impact of this proposal.

1.3 The site was located in a rural location at GB grid reference ST 94813 68637.

1.4 The site was approximately 2563 square metres in area including the existing site access track. The buildings to be demolished were in total approximately 568 square metres in area.

2 Methodology

2.1 Desk study

2.1.1 Information regarding sites and habitats with statutory designations within a 2 km radius and 100 metre radius of the site was obtained from MAGIC. This included a search for granted EPS licence applications relating to bats.

2.1.2 Aerial images were reviewed to assess the degree of connectivity of the site with the wider landscape.

2.2 Field survey

2.2.1 Survey was carried out on 24 February 2024 during the daytime in cold and dry weather conditions by an experienced ecologist licensed by Natural England to Class licence levels 3 and 4 CLS 19 and CLS 20 to survey for bats and trained and experienced in Phase 1 habitat survey and National Vegetation Classification survey.

2.2.2 All structures on the site were surveyed externally and internally for potential bat roost features, deposits of bat droppings and for the presence of the remains of dead adult and juvenile bats and for the physical presence of live bats.

2.2.3 A search of the structures on the site were surveyed for evidence of breeding birds and in particular barn owls. A search was made for the presence of barn owls including old and fresh pellets, deposits of black and white urine splashes on building floors, beams and walls, evidence of nesting and potential nest sites, the remains of dead adult and young birds, eggs and egg shells consistent in appearance with those of barn owls, shed barn owl feathers and down and prey remains.

2.2.4 Habitat survey was carried out in accordance with National Vegetation classification and Phase 1 habitat survey techniques by a surveyor trained and experienced in survey for common reptile species.

2.2.5 Building survey for bats was carried out following the guidance contained in Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition) 2023

2.2.6 Full access to all parts of the structures externally and internally was possible. Potential bat roost features were searched for including missing or shifted roof tiles, gaps in mortar between ridge tiles, raised lead flashing, cracks or crevices in walls, gaps surrounding poorly fitting window and door frames, deteriorating fascias and soffits creating gaps where bats could gain access and embedded timbers in walls with splits or surrounding gaps. Deposits of bat droppings on windowsills or panes or at wall bases, particularly at gable ends were searched for. Obvious points of flying and crawling access to the building interiors such as missing or broken window panes, ventilation shutters or poorly fitting doors. Evidence created by bat access associated with these features was searched for. Such evidence included staining from the fur oil of roosting bats, areas roughened or worn smooth by bat access and deposits of bat droppings associated with these features.

2.2.7 The building interiors were searched for evidence of the presence of bats such as areas of the roof frames where staining deposited from oil on the fur of roosting bats may have accumulated, areas worn smooth by bat access or roughened by the claws of roosting bats. Deposits of bat droppings and urine splashes on the floors and the surfaces of stored items were searched for the roof frames beams and tight junction of the roof frame were searched for the physical presence of bats and for signs created by roosting bats.

2.2.8 Although plant species present were unlikely to be in full growth on the date of survey or not visible above ground, it is not considered that this was a limitation to survey and an adequate assessment of the habitats present in this domestic garden was possible.

2.2.9 Although bat activity surveys must be carried out during the period of time when bats are active and not in hibernation, surveys of structures for evidence of the presence of bats and potential bat roost features are not time limited although winter surveys may also identify the presence of hibernating bats. Winter weather conditions may also remove external signs associated with potential bat roost

features created as a result of bat access. This potential limitation was taken into account when assessing the need for bat activity surveys.

2.3.10 Habitats on the site were assessed for potential to support protected species.

3 Survey results (refer Appendix 1 Site photographs)

Figure 3 Aerial image of site (marked with red circle) local context

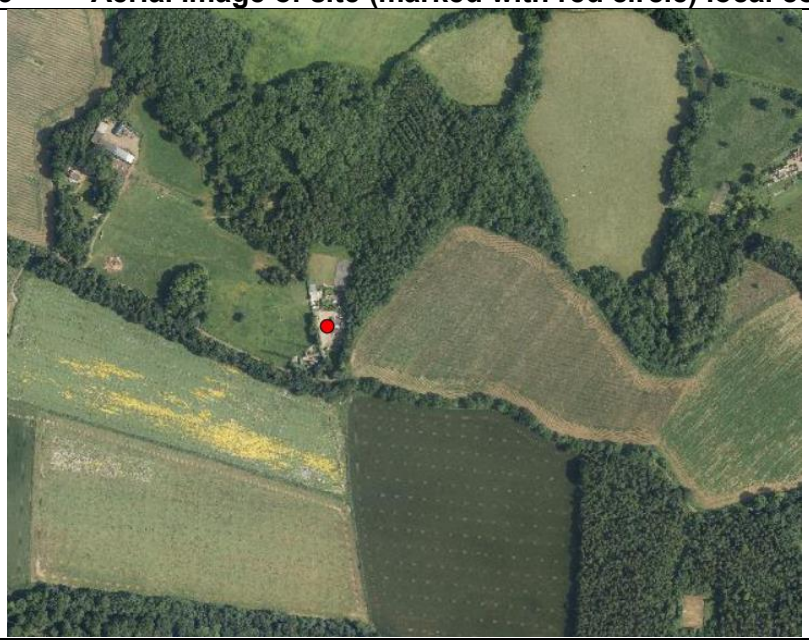
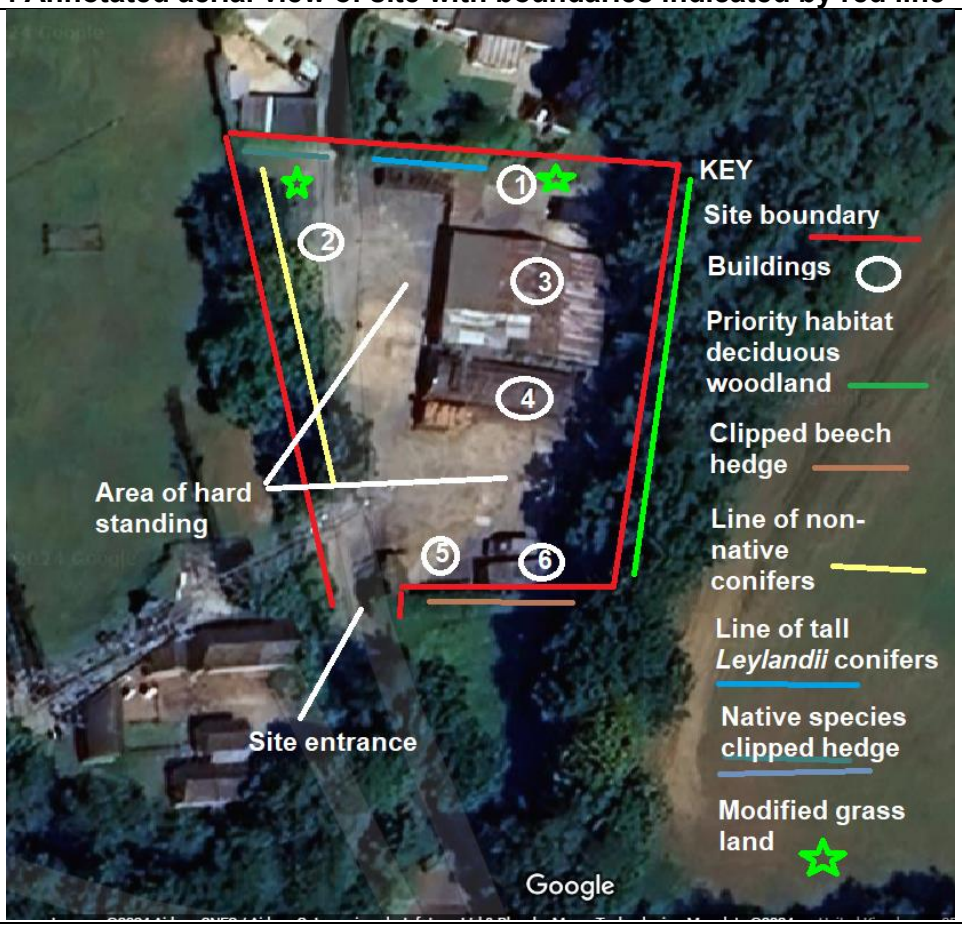


Figure 4 Annotated aerial view of site with boundaries indicated by red line



3.2 Desk study

3.2.1 The site was located at GB grid reference ST 94813 68637

3.2.2 Review of an aerial image of the site showed strong connectivity to a network of hedges and ancient woodland in the adjacent and wider area. This surrounding area was in agricultural cultivation as arable and pasture.

3.2.3 There were no sites or habitats with statutory designations within the site but within a 100 metre radius were areas of Ancient Woodland and Priority Habitat Inventory Deciduous Woodland.

3.2.4 Within a 2 km radius of the site surveyed were the following sites and habitats with statutory designations:

- Sites Of Special Scientific Interest (England)
    - Spye Park SSSI
- Priority Habitat Inventory - Lowland Meadows (England)
- Priority Habitat Inventory - Lowland Fens (England)
- Priority Habitat Inventory - Ponds And Lakes (England)
- Ancient Woodland (England)
    - Unnamed Wood Ancient & Semi-Natural Woodland Area (Ha) 1.647763
    - Unnamed Wood Ancient Replanted Woodland Area (Ha) 5.14251
    - Unnamed Wood Ancient Replanted Woodland Area (Ha) 7.528199
    - Briary Wood Ancient & Semi-Natural Woodland Area (Ha) 3.347791
    - Briary Wood Ancient Replanted WoodlandArea (Ha) 2.135918
    - Briary Wood Ancient Replanted Woodland Area (Ha) 9.341117
    - Foxbury Wood Ancient & Semi-Natural Woodland Area (Ha) 2.724457
    - Great Wood Ancient Replanted Woodland Area (Ha) 5.074167
    - Great Wood Ancient Replanted Woodland Area (Ha) 75.789387
    - Great Wood Ancient & Semi-Natural Woodland Area (Ha) 3.067445
    - Nethermore Wood Ancient & Semi-Natural Woodland Area (Ha)4.438702
    - Long Copse Ancient & Semi-Natural Woodland Area (Ha) 18.471127
    - Long Copse Ancient Replanted Woodland Area (Ha) 11.927601
    - Lower Selves Wood Ancient & Semi-Natural Woodland Area (Ha) 4.122821
    - Raspberry Copse/Badgers B Ancient & Semi-Natural WoodlandArea (Ha) 26.519437
    - Raspberry Copse/Badgers B Ancient Replanted Woodland Area (Ha) 1.108864
    - Raspberry Copse/Badgers Ancient Replanted Woodland Area (Ha) 0.20588
    - Pitters Wood Ancient Replanted Woodland Area (Ha) 5.363151
    - Scutts Copse Ancient & Semi-Natural Woodland Area (Ha) 5.181593
    - Scutts Copse Ancient & Semi-Natural Woodland Area (Ha) 3.537999
    - Tacklemore Wood/Hazel Cps Ancient & Semi-Natural Woodland Area (Ha) 1.15126
    - Tacklemore Wood/Hazel Cps Ancient & Semi-Natural Woodland Area (Ha) 3.609335T
    - acklemore Wood/Hazel Cps Ancient Replanted Woodland Area (Ha) 3.810821
    - Tacklemore Wood/Hazel Cps Ancient Replanted Woodland Area (Ha)14.186067
    - Upper Selves Wood Ancient & Semi-Natural Woodland Area (Ha) 5.42781
    - Wheelers Wood Ancient & Semi-Natural Woodland Area (Ha)11.16925
    - Wheelers Wood Ancient Replanted Woodland Area (Ha)1.460308
- Priority Habitat Inventory - Deciduous Woodland (England)
- National Forest Inventory (GB)
- Priority Habitat Inventory - Traditional Orchards (England)

3.2.5 Within a 2 km radius of the site surveyed were the following granted European Protected Species Applications (England):

- 2020-48642-EPS-MIT relating to Brown Long-eared bats, Common pipistrelles and Soprano pipistrelles allowing the destruction of a resting place
- EPSM2009-1178 relating to Common pipistrelles and Brown Long-eared bats allowing impact on and destruction of a breeding site and destruction of a resting place

3.3 Building survey (refer Appendix 1 site photographs)

3.3.1 Building 1 This structure was no longer present and had been a portacabin.

3.3.2 Building 2 This blockwork structure, formerly a store, no longer had a roof and was in use as bays for aggregate storage.

3.3.3 Building 3 This structure was a steel framed building with a roof and walls of corrugated metal sheets and was in use as a store/workshop. The roof was supported on a metal frame with timber purlins. The roof was complex mix of pitched and mono-pitch construction. Internally the building was divided into three compartments with some connectivity. Along the western elevation were hinged double metal doors, a metal half door closing the lower section of the compartment but open above and a compartment with a closed front. On survey of the exterior there was obvious flying access through the partial open front but no potential bat roost features were identified and no evidence created by bat access was found. On internal survey no bat droppings were found on the concrete floor or on the surfaces of items within the building interior. The building was in daily light industrial use and disturbance levels likely to be high. The roof and walls were unlined. No evidence of breeding birds including barn owls was found.

3.3.4 Building 4 This structure was a Nissen hut likely constructed in the 1940s with building materials of unknown composition and was in use as a workshop. The curved roof was supported on a low blockwork wall and was lined with panels of unknown composition. There were no obvious points of crawling or flying access to the interior and no potential bat roost features were identified or evidence created by bat access. This building is normally kept locked shut. No evidence of breeding birds was found on internal survey.

3.3.5 Building 5 This structure had been a container and was no longer present.

3.3.6 Building 6 This structure had been a portacabin and was no longer present.

3.4 Field survey

3.4.1 The site surveyed was a flat area of land used for light industrial purposes. This appeared in the past to have been levelled and excavated from a north/south orientated shallow slope and had been surfaced to create hard standing.

3.4.2 Other than two small areas of modified grassland in the north west and north east corners of the site and shrubby vegetation (bramble) between buildings 3 and 4 there was no habitat of ecological significance within the site.

3.4.3 A clipped native species hedge (hazel) and a tall non-native species hedge (*Leylandii)* was present on the northern boundary.

3.4.4 A line of tall non-native conifers was present on the western boundary.

3.4.5 Along the eastern boundary was an area of Priority Habitat Deciduous woodland where mature oaks were present although the dominant species was non-native conifers.

3.4.6 A clipped beech hedge was present on the southern boundary bordering the site entrance.

4 Discussion and Analysis of Results

4.1 Because of their structure, none of the buildings on the site had potential bat roost features on their exteriors and other than building 3 there was no flying access to their interiors.

4.2 Despite this flying access, no evidence of bats or breeding birds was found on survey of the interior of building 3 and the high levels of daytime disturbance and lighting as a result of the light industrial use is unlikely to create the dark and undisturbed conditions that bats require in a day time roost.

4.3 Barn owls will sometimes use buildings in rural areas which have flying access but no evidence of such use was found on survey and there was no evidence in the form of nests that other building nesting birds such as swallows were present.

4.4 Because of the surfacing of the hard standing, there was no habitat of a significant area likely to support protected species. However, the small area of bramble between buildings 3 and 4 might provide shelter for breeding birds.

4.5 The two small areas of modified grassland located in the north west and north east corners of the site would be unlikely to provide the shelter and resources which common reptile species such as slow worms require. However this grassland located on the sloping banks of the site is likely to play a stabilising role in reducing the risk of soil erosion and run-off onto the site and should ideally be retained. Consideration should also be given to allowing similar grassland to develop, by seeding

with a suitable seed mix if necessary, on similar bare slopes present or created on the site as part of the proposed development.

4.6 The hedges on the site boundary and particularly the area of Priority Habitat Deciduous woodland create direct connectivity to similar habitat in the local and wider area. These areas are likely to be well known to local bat populations and other nocturnal wildlife species and used as commuting routes to the adjacent and wider landscape and as feeding areas.

4.7 For this reason there is a risk that the site boundaries may be subject to sp9illage of light from the proposed new building. This can have an adverse effect of nocturnal wildlife species, particularly bats which are light avoiders. Spillage of domestic lighting can result in changes in behaviour such as delaying emergence from roosts or diversion away from familiar commuting routes and feeding areas.

4.8 This can negatively alter the energy balance of bats in relation to energy gained by the consumption of prey items during feeding and energy expended during that activity. Behaviour change may result in reduce time being spent feeding in the hours of darkness or travelling longer flying distances in the search for food. This energy imbalance can affect the body condition of bats and reduce breeding success and winter survival of adults and juvenile bats and ultimately result in decline in bat populations.

5 Conclusions

5.1 There will be no direct negative impact on bats as a result of the proposed work.

5.2 There is a low risk of indirect negative impact on bats and other nocturnal wildlife species resulting from increased spillage of lighting from the new development.

5.3 There is a low risk of negative impact on breeding birds.

5.4 There is a low risk of damage/disturbance to an area of Priority Habitat Deciduous woodland and hedges and other habitat on the site boundaries as a result of the proposed work.

6 Recommendations (refer Appendix

6.1 A lighting strategy for the site should be drawn up to minimise the risk of negative ecological impact from spillage of lighting. This should aim at maintaining dark corridors along the site boundaries to avoid disrupting commuting routes for bats and other nocturnal wildlife and should follow the advice contained in Bats and Artificial Lighting Guidance Note 8 2023 *https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting*

6.2 Shrubby vegetation on the site should be cut back/removed outside of the breeding season for birds which is normally regarded as being between and including the months of February to August, although some species will breed outside of this period of time. If this is not possible any shrubby or climbing vegetation which may shelter breeding birds should be checked by an ecologist to ensure that no bird nests are present. If an active bird nest is found, this should be surrounded by an ecological protection zone of at least five metres to avoid disturbance. Fencing off this area must not obstruct access by parent birds to the nest. This ecological protection zone should remain in place until the nest has been deserted naturally. Bird nests are regarded as active when being constructed, contain incubating eggs or unfledged or fledged nest dependent young. Should an active nest be found, ecological advice should be sought regarding the most suitable site-specific method of protecting the nest from disturbance.

6.3 Care should also be taken when carrying out construction work adjacent to shrubby vegetation/mature trees to avoid disturbance to any breeding bids which may be present. If breeding birds are present and likely to be disturbed by noisy construction work, ecological advice should be sought on the most appropriate site specific method of avoiding such disturbance.

6.4 A construction and ecological method statement (CEMP) should be drawn up to minimise the risk of damage to the area of Priority Habitat Deciduous Woodland and hedges on the site boundaries and to the remaining areas of modified grassland. This CEMP should include precautions to protect these areas such as fencing off temporarily and labelling these as ecological protection zones for the duration of the proposed work.

7 Biodiversity net gain
(refer Appendix 5 Suggested suitable built in bird and bat boxes)

7.1 A bat box and a bird box, one for each new building on the site, should be built into external walls in ecologically approved locations.

7.2 These bat and bird boxes should be of a design suitable for use by bat and bird species commonly associated with buildings.

7.3 These boxes imply permanency and will remain in place for the lifetime of the building.

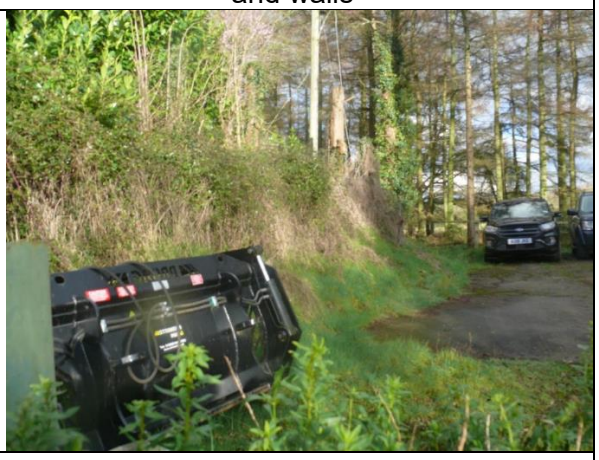
7.4 Bat and bird boxes placed on trees on the site are not acceptable alternatives since these can be displaced or removed.

7 Appendices

Appendix 1 Site photographs

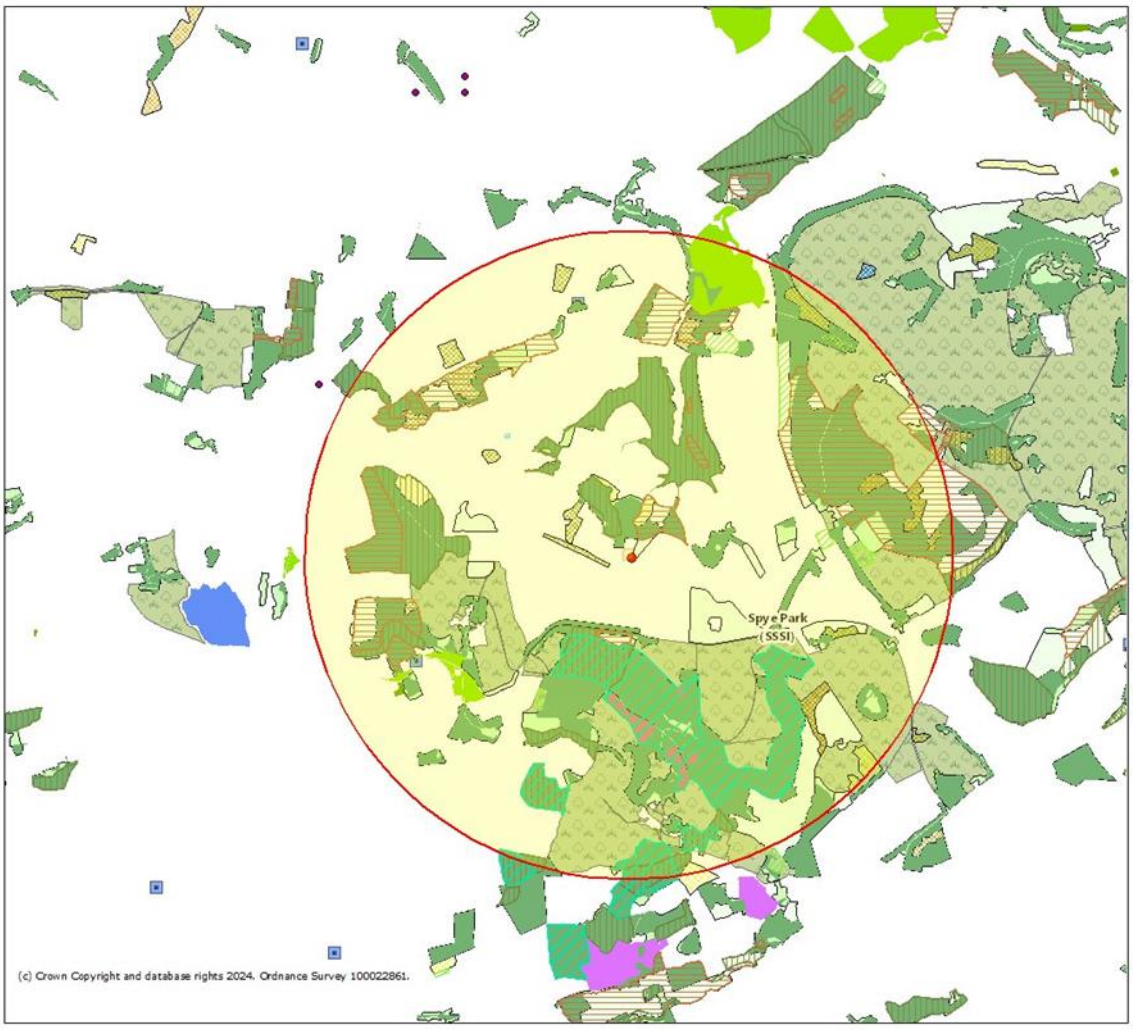
<table>
<tr><td></td><td></td></tr>
<tr><td>View across site looking north</td><td>Location of building 1 (now removed)
This was a metal storage container</td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td>Building 2 (now with no roof) in use as aggregate bays</td><td>Western elevation of building 3</td></tr>
<tr><td></td><td></td></tr>
<tr><td>Eastern and southern elevations of building 3</td><td>Northern elevation of buiiding 3</td></tr>
</table>

	
Interior view of unlined pitched roof and gable end of building 3	Interior view of roof frame of building 3 showing intersection of pitched and monopitched roofs
	
Interior of building 3 showing complex structure of roof frame	Western elevation of building 4
	
Southern elevation of building 4	Northern elevation of building 3

	
Eastern elevation of building 3	Interior of building 4 showing lining of roof and walls
	
Small area of modified grassland on slopingbank in north west corner of site also showing relict native species hedge and clipped hazel hedge	Area of modified grassland in north east corner of site
	
Area of bramble between buildings 3 and 4	Priority Habitat Deciduous woodland along eastern site boundary

	
Leylandii hedge on northern site boundary	Site entrance from the south also showing clipped beech hedge on southern site boundary

Appendix 2 Designated sites within a 2 kilometres radius of the site surveyed



Legend

- Areas of Outstanding Natural Beauty (England)
- National Nature Reserves (England)
- National Parks (England)
- Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- Special Areas of Conservation (England)
- Special Protection Areas (England)
- Biosphere Reserves (England)
- RSPB Reserves (GB)
- Priority Habitat Inventory - Calaminarian Grassland (England)
- Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England)
- Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England)
- Priority Habitat Inventory - Lowland Calcareous Grassland (England)
- Priority Habitat Inventory - Lowland Dry Acid Grassland (England)
- Priority Habitat Inventory - Lowland Meadows (England)
- Priority Habitat Inventory - Purple Moor Grass and Rush Pasture (England)
- Priority Habitat Inventory - Upland Calcareous Grassland (England)
- Priority Habitat Inventory - Upland Hay Meadows (England)
- Priority Habitat Inventory - Blanket Bog (England)
- Priority Habitat Inventory - Lowland Fens (England)
- Priority Habitat Inventory - Lowland Raised Bog (England)
- Priority Habitat Inventory - Reedbeds (England)
- Priority Habitat Inventory - Upland Flushes, Fens and Swamps (England)
- Priority Habitat Inventory - Ponds and Lakes (England)

Ancient Woodland (England)

- Ancient and Semi-Natural Woodland
- Ancient Replanted Woodland
- Priority Habitat Inventory - Deciduous Woodland (England)

Projection = OSGB36
xmin = 388100
ymin = 165900
xmax = 400700
ymax = 171900

Map produced by MAGIC on 26 February, 2024.
Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.

0 0.55 1.1
km

Appendix 3 Summary of legislation relating to bats

All bat species, their breeding sites and resting places are fully protected by law -from deliberate harm, disturbance and killing and their roosts from damage, disturbance and destruction

https://www.gov.uk/guidance/bats-protection-surveys-and-licences

Appendix 4 Summary of legislation relating to breeding birds It is illegal to disturb breeding birds, to damage or destroy their nests. Nests are regarded as active whilst being constructed, contain incubating eggs, unfledged young or nest dependent fledged young. Parent and young birds must be allowed to desert nests naturally and not as a result of disturbance. The breeding season for birds is normally regarded as being between and including the months of February to August although some species may breed outside of this period of time.

Appendix 5 Suggested suitable built in bird and bat boxes

<table>
<tr><td></td><td></td></tr>
<tr><td>PRO UK Build-in WoodStone Bat Box</td><td>WoodStone® Estella House Sparrow Nest Box</td></tr>
<tr><td></td><td></td></tr>
<tr><td>Integrated Eco Bat Box with Crevice Chamber</td><td>Pino Build-in Swift Box</td></tr>
</table>

Disclaimer *All reasonable effort was taken to ensure an accurate assessment of the situation at the time of the survey. However, the absence of recorded presence or sign should not be taken as an absolute guarantee that the site was not being used by a particular species. There is also no guarantee that any particular species will not use the site at any time in the future. Survey results may be weather or seasonally dependent. Any interpretation of legislation is based on our understanding and experience of the law. The relevant statutory authority can provide a more definitive interpretation.*

This report is the responsibility of Chalkhill Environmental Consultants. It should be noted, that whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.