

Preliminary Ecological Appraisal

Land to the rear of Sheepleas House, West Horsely, Leatherhead, KT24 6AL

28th March 2024

1. INTRODUCTION

1.1. Aspect Ecology was commissioned by BlackOnyx Projects Limited in November 2023 to undertake a Preliminary Ecology Appraisal of Sheepleas House, West Horsley, Leatherhead, hereafter referred to as 'the site', which is to be developed for up to four new residential dwellings and access. The appraisal has been informed by a desktop study and a Phase 1 ecological survey of the site.

2. METHODOLOGY

Desktop Study

- 2.1. In order to compile background information on the site and its immediate surroundings, background data was obtained from Surrey Biodiversity Information Centre (SBIC) in December 2023 on the basis of a search radius of 2km. A search of Defra's Multi-Agency Geographic Information for the Countryside (MAGIC) database, which utilises data provided by Natural England, was also undertaken based on a search radius of 25km for statutory ecological designations.
- 2.2. In addition, the Woodland Trust database was searched for any records of ancient, veteran or notable trees within or adjacent to the site. Furthermore, existing online aerial photography and Ordnance Survey mapping was reviewed for the site and surrounding area.

Phase 1 Habitat Survey

- 2.3. The site was surveyed in November 2023 based on standard Phase 1 Habitat Survey methodology¹, whereby the habitat types present are identified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey.
- 2.4. Any such areas identified can then be examined in more detail through Phase 2 surveys. This method was extended, in line with the Guidelines for Preliminary Ecological Appraisal² to record details on the actual or potential presence of any notable or protected species or habitats.

Joint Nature Conservation Committee (2010, as amended) 'Handbook for Phase 1 habitat survey: A technique for environmental audit.'

² Chartered Institute for Ecology and Environmental Management (CIEEM) (2013) 'Guidelines for Preliminary Ecological Appraisal.'



Bats³

Preliminary Roost Assessment

- 2.5. **Buildings.** Buildings within the site were subject to specific internal and external inspection surveys using ladders, torches and binoculars where necessary in November 2023.
- 2.6. During the external inspections, particular attention was given to any potential roost features or access points, such as broken or lifted roof tiles, lifted lead flashing, soffit boxes, weatherboarding, hanging tiles, etc. and for any external signs of use by bats such as accumulations of bat droppings or staining. Binoculars were used to inspect any inaccessible areas more closely where appropriate.
- 2.7. During the internal inspections, evidence for the presence of bats was searched for with particular attention paid to any loft voids and relevant potential roost features and locations, such as ridge boards, rafters, purlins, gable walls, and mortise joints. Specific searches were made for bat droppings that can indicate present or past use and extent of use, whilst other signs that can indicate the possible presence of bats were also searched for, e.g. presence of stained areas, feeding remains, corpses, etc. Any droppings collected during the course of the surveys were visually assessed and attributed to a species where possible on the basis of size/shape/texture⁴. Where appropriate, samples of similar droppings were collected with gloved hands and put into labelled eppendorfs, and forwarded to the University of Warwick for DNA analysis.

Ground Level Tree Assessment

- 2.8. **Trees.** Trees were assessed for their suitability to support roosting bats based on the presence of features such as holes, cracks, splits or loose bark. Suitability for roosting bats was rated based on relevant guidance⁵ as:
 - PRF-I (suitable for Individual/very small numbers of bats); or
 - PRF-M (suitable for Multiple bats or Maternity roosts).
- 2.9. Any potential roost features identified were also inspected for any signs indicating possible use by bats, e.g. staining, scratch marks, bat droppings, etc.
- 2.10. **Personnel.** The above survey work was carried out under direction of licence holder 2015-14049-CLS-CLS.



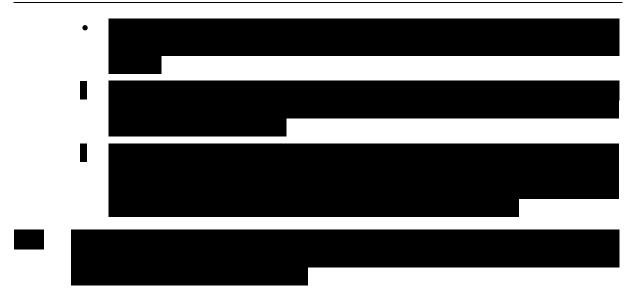
³ Surveys based on: English Nature (2004) 'Bat Mitigation Guidelines' and Collins, J. (ed.) (2023) 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn).' Bat Conservation Trust

Stebbings, RE, Yalden DW and Herman, JS (2007). 'Which bat is it? A guide to bat identification in Great Britain and Ireland.' The Mammal Society

⁵ Collins, J. (ed.) (2023) 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn).' Bat Conservation Trust

Based on: Mammal Society (1989) 'Occasional Publication No. 9 – Surveying Badgers'





Great Crested Newt (Triturus cristatus)

Habitat Suitability Index (HSI)

- 2.13. As a first step in identifying the potential presence of Great Crested Newt at the site, a Habitat Suitability Index (HSI) study was undertaken of all relevant water bodies within 250m⁷ of the site boundary (based on a review of Ordnance Survey mapping and satellite imagery). Guidance set out within Natural England's Method Statement template, to be used when applying for a Great Crested Newt development licence, states that surveys of ponds within 500m of the site boundary are only required when '(a) data indicates that the pond(s) has potential to support a large Great Crested Newt population, (b) the footprint contains particularly favourable habitat, (c) the development would have a substantial negative effect on that habitat and (d) there is an absence of dispersal barriers.' Given that in this instance, none of the four points listed above are applicable to the site, it is considered that survey of ponds within 500m of the site boundary is not required, and that survey of ponds within 250m represents adequate survey effort.
- 2.14. An HSI study is used to assess the potential of water bodies to support Great Crested Newt. It is undertaken by attributing a score to a number of factors that can affect the presence or absence of this species. Ten factors are utilised in an HSI assessment, as described below:
 - SI1 Location. The location of the water body within Great Britain;
 - SI2 Pond area. The size of the water body;
 - SI3 Permanence. How often the water body dries out;
 - SI4 Water Quality. The water quality, based primarily on invertebrate diversity;
 - SI5 Shade. The percentage of the perimeter of the water body that is shaded;
 - SI6 Fowl. The presence or absence of water fowl;
 - SI7 Fish. The presence or absence of fish;
 - SI8 Pond Count. The number of water bodies within 1km of the surveyed water body (not counting those on the far side of major barriers such as roads);
 - S19 Terrestrial. The quality of terrestrial habitat surrounding the water body; and
 - *SI10 Macrophytes*. The percentage cover of the surface area of the water body covered by macrophytes (aquatic plants).

⁷ 250m is the typical maximum migratory range of this species, see English Nature (2004) 'An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt Triturus cristatus'. English Nature Research Report 576



- 2.15. The overall suitability of the water body is then determined by entering these figures into an equation devised by Oldham *et al.* (2000)⁸. The suitability of water bodies is classed into one of five categories, either 'poor', 'below average', 'average', 'good' or 'excellent'.
- 2.16. This HSI study was undertaken in line with the guidelines developed by Oldham *et al.* and subsequently adapted by ARG UK (2010)⁹. A suitably experienced ecologist undertook the assessment in line with these guidelines, with the study also supplemented by desktop research where appropriate.

3. SURVEY CONSTRAINTS AND LIMITATIONS

- 3.1. All of the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during different seasons. The Phase 1 habitat survey was undertaken outside the optimal season, albeit the nature of the habitats within the site allowed for the broad habitat types to be identified and for an adequate assessment of the intrinsic ecological interest of the site to be made.
- 3.2. Attention was paid to the presence of any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). However, the detectability of such species varies due to a number of factors, e.g. time of year, site management, etc., and hence the absence of invasive species should not be assumed even if no such species were detected during the Phase 1 survey.



3.4. A full internal survey of building **B1** was not possible due to the presence of a false ceiling within this building. However, given that the building is to be retained, the impaired internal inspection does not represent a significant constraint.

4. ECOLOGICAL DESIGNATIONS

Statutory Designations

- 4.1. The desktop study confirms the site is not subject or adjacent to any statutory ecological designations. The nearest statutory designation is Sheepleas Site of Special Scientific Interest (SSSI) and Local Nature Reserve (LNR) located approximately 22m south of the site. Sheepleas SSSI and LNR is separated from the site by Epsom Road to the south of the site. The site is also located approximately 2.8km north-east of Upper Common Pits SSSI, and 3.7km north of Hackhurst and White Downs SSSI.
- 4.2. The nearest international statutory ecological designations are Thames Basin Heaths Special Protection Area (SPA) located approximately 5.1km to the north of the site, and Mole Gap to Reigate Escarpment Special Area of Conservation (SAC) located approximately 6.2km to the east of the site.

Oldham RS, Keeble J, Swan MJS & Jeffcote M (2000) 'Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)'. Herpetological Journal 10 (4), 143-155

⁹ Amphibian & Reptile Groups of the UK (2010) 'ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index'



- 4.3. Natural England has developed Impact Risk Zones (IRZs) as an initial tool to help assess the risk of developments adversely affecting SSSIs, taking into account the type and scale of developments. The site sits within a number of IRZs, three of which are in relation to Sheepleas SSSI, Ockham and Wisely Commons SSSI and Whitmoor Common SSSI. The IRZs apply to infrastructure including:
 - 'ALL PLANNING APPLICATIONS EXCEPT HOUSEHOLDER APPLICATIONS.'
 - 'Airports, helipads and other aviation proposals.'
 - 'Oil & gas exploration/extraction.'
 - 'Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.'
 - 'Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.'
 - 'Any development that could cause AIR POLLUTION or DUST either in its construction or operation (incl: industrial/commercial processes, livestock & poultry units, slurry lagoons & digestate stores, manure stores).'
 - 'All general combustion processes. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/combustion.'
 - 'Mechanical and biological waste treatment, inert landfill, non-hazardous landfill, hazardous landfill, household civic amenity recycling facilities construction, demolition and excavation waste, other waste management.'
 - 'Any composting proposal. Incl: open window composting, in-vessel composting, anaerobic digestion, and other waste management.'
- 4.4. The proposed development does not involve any of the above elements, therefore it is unlikely to give rise to potential adverse impacts on any of the SSSIs or the LNR. Similarly, given the physical separation distances involved, and based on the nature and scale of the proposals, no adverse effects on the SPA or SAC are anticipated.

Non-statutory Designations

4.5. The desktop study confirms the site is not subject or adjacent to any non-statutory ecological designations. The nearest non-statutory designation is Lollesworth Wood Site of Nature Conservation Importance (SNCI) located approximately 0.7km to the north-west of the site. Lollesworth Wood SNCI is designated for its species-rich ancient semi-natural woodland habitat, and supports a native population of the Wild Daffodil *Narcissus pseudonarcissus* subsp. *pseudonarcissus*. The next nearest non-statutory designation is Riding's Wood SNCI located approximately 1.3km to the north-east of the site. These designations are physically separated from the site, such that no adverse effects are anticipated.



Priority Habitats and Ancient Woodland

4.6. A review of the MAGIC database has identified an area of Ancient and Semi-Natural Woodland and Priority Habitat 'Deciduous Woodland' approximately 22m south of the site. The Priority Habitat and Ancient Woodland is located within Sheepleas SSSI and LNR, which is separated from the site by Epsom Road. An area of Priority Habitat 'Woodpasture and Parkland' is also located approximately 120m west of the site, and is separated from the site by an arable field. Given the physical separation, the Priority Habitats and Ancient Woodland are unlikely to be impacted by development of the site.

5. HABITATS

- 5.1. **Buildings and hardstanding.** A single building and two associated structures are present within the site, including a detached two-storey garage, a glass greenhouse and a wooden summer house. Hardstanding is also present in the form of an asphalt drive, concrete paving, gravel areas and a tennis court. The buildings and hardstanding are largely devoid of vegetation. As such, these habitats do not constitute important ecological features. The potential for on-site buildings to support faunal species is discussed at Chapter 6 below.
- 5.2. **Modified grassland.** The site largely comprises of areas of modified grassland associated with the residential garden surrounding the buildings and hardstanding. The grassland was managed to a uniformly short sward height of ~5cm at the time of the survey. The modified grass at the north of the site was noted to comprise a higher abundance of herbs. However, the species recorded are common and widespread and are typical of a well-managed garden lawn. This habitat is readily replicated, does not constitute an important ecological feature, and any loss of the habitat to proposals would be of negligible ecological significance.
- 5.3. Areas of longer-sward modified grassland were also recorded in small patches throughout the site, associated with the young tree planting. The grassland sward was noted to be approx. 5-15cm at the time of survey, and to be more tussocky with some patches of tall ruderal. The grassland supports a low diversity of common and widespread species, and therefore does not form an important ecological feature. As such, any loss to the proposals would be of negligible ecological significance.
- 5.4. **Introduced shrub.** Throughout the site are areas of amenity planting, the majority of which is associated with the residential dwelling. The amenity planting comprises domestic nonnative species and therefore does not constitute an important ecological feature. As such, any loss to the proposals is of negligible ecological significance.
- 5.5. **Hedgerows and Line of trees.** The site is bound by hedgerows, the majority of which likely qualify as Priority Habitat. However, the hedgerows form the curtilage of a residential property and as such do not qualify as 'important' under the Hedgerows Regulations 1997. Nevertheless, the hedgerows and trees have been retained within the scheme design where practicable.
- 5.6. **Orchard.** A small area of young fruit tree planting is present within the amenity grassland, comprising Apple *Malus* sp., which appeared to be subject to management for fruit production. The ground flora was recorded to be as the amenity grassland, however appeared to be managed less frequently. Traditional Orchards are a Priority Habitat when managed in a low intensity way. Additional criteria for Priority Habitat include a habitat structure comprising open-grown trees in herbaceous vegetation; species composition of fruit and nut trees, primarily *Rosaceae*; denser arrangement of trees; small scale habitat patch; and low intensity management.



- 5.7. Although the on-site orchard comprises fruit trees, the trees are young in age and located within an area of amenity grassland. Therefore, the orchard does not meet the definition for Priority Habitat and is not assessed to be an important ecological feature.
- 5.8. Trees. A number of semi-mature to mature trees were recorded within and adjacent to the site, the majority of which are associated with hedgerows, line of trees and shelter belt. The mature trees are of ecological interest in their own right, however at present do not constitute important ecological features.
- 5.9. Shelter belt. A band of shrubs and young to semi-mature trees is present along the northern boundary of the site. The shelter belt comprises native trees and shrubs, with the ground flora noted to be largely bare ground. It is recommended the shelter belt be retained under the proposals where practicable.

6. FAUNA

- 6.1. Bats Roosting: Buildings. A number of buildings and built structures are present within the site, as described below.
- 6.2. Building B1 is a detached two-storey red brick garage/residential space, with a combination dutch gable and pitched roof clad with clay tiles. Dormer windows are present on the eastern elevation, along with a semi-enclosed garden window on the southern elevation. The second storey gable is clad with hanging tiles on the northern and upper section of the southern elevation, as well as on the sides of dormer windows, of which a number of gaps beneath the hanging tiles was noted. A number of slipped, lifted and cracked roof tiles were also noted on the roof, along with some missing mortar. Wooden soffit boxes are present, albeit these were in good overall condition. Internally, the ceiling on the upper floor was plastered, such that there was no access into any potential roof space. No evidence of roosting bats was recorded. Nevertheless, B1 is to be retained under the proposals, such that no further consideration in regard to roosting bats is required.
- 6.3. Two additional outbuildings are present within the site, comprising detached single-storey structures. Building B2 is a metal framed glass greenhouse, with a red brick base, located within the modified grassland. Building B3 is a single-skinned wooden octagonal summer house, with a small wooden veranda, located to the north of the site. The structure is open to the roof internally, with windows on the eastern elevation such that the structure is well-lit internally. Overall, buildings B2 and B3 offer negligible opportunities for roosting bats and any loss of these structures to the proposals is not expected to adversely impact roosting bats.
- 6.4. Bats Roosting: Trees. A number of trees with individual and multiple potential roost features are present within the site. Any trees with multiple potential roost features to be removed to facilitate the development will require further survey work (see Section 7 below).
- 6.5. Bats Commuting and Foraging. The modified grassland is of relatively poor value for foraging bats. However, the on-site hedgerows, trees and wooded belt provide suitable foraging and commuting habitat for bats. It is therefore recommended that the hedgerows, trees and shelter belt be retained and buffered within any future scheme design, so as to retain foraging opportunities and connectivity with the wider landscape.

6.6.



- 6.7. Dormouse. The on-site hedgerows and shelter belt provide some, albeit limited, potential Dormouse habitat. The site is located within the known distribution of Dormouse, and records of Dormouse were returned from SBIC with some potentially linked suitable habitat, i.e. Sheepleas SSSI. As such, specific Dormouse survey work is advised to inform the planning application (see Section 7 below).
- 6.8. Great Crested Newts. From a review of OS mapping, a single pond was noted within 250m of the site. No access was available to the pond at the time of the survey. As such, an HSI study was undertaken of the pond based on OS aerial imagery and was found to be of 'good' potential to support Great Crested Newts. The longer sward grassland, hedgerows and shelter belt provide some suitable habitat for amphibians, however, the site is dominated by short-sward amenity grassland which largely provides negligible habitat for amphibians such as Great Crested Newts. Furthermore, no records of GCN were returned from the LRC. Nevertheless, given the presence of suitable habitat within the site and an off-site pond, further survey work is recommended to determine the presence/absence of GCN within the off-site pond (see Section 7 below).
- 6.9. **Reptiles.** The tussocky areas of grassland, hedgerows and shelter belt offer foraging/refuge opportunities for reptiles. As such, specific reptile survey work is advised to inform any future planning application (see Section 7 below).
- 6.10. Birds. The trees and hedgerows at the site boundaries are suitable for nesting birds, however overall, the site is not expected to be of significant ornithological interest.
- 6.11. Invertebrates. The hedgerows and longer sward grass within the site may provide some opportunities for invertebrates, however the majority of the site comprises managed amenity grassland and is therefore unlikely to be of significant value to invertebrates.

7. FURTHER SURVEY RECOMMENDATIONS AND OUTLINE MITIGATION MEASURES

Further Survey Recommendations

7.1. Bats – Roosting: Trees. A number of trees with individual and multiple potential roosting features are present within the site. Under he current proposals no trees with potential roosting features are to be removed. However, should any trees with multiple bat roosting features require removal and/or pruning works, or should the features that afford bat roosting potential be affected by lighting from the scheme, further survey work is advised to determine the presence/absence of bat roosts in accordance with latest best practice guidelines. This would involve three climbed aerial surveys of the features between May and August. Should access not be possible to fully inspect the features, or a maternity roost be identified, dusk emergence survey work would be required to further assess the tree(s). This would involve at least two survey visits between May and September, with at least one survey conducted between May and August. Should any trees with PRF-Is need to be felled, these should be subject to a section-felling protocol.



7.3. Dormouse. The on-site hedgerows and shelter belt provide some suitable habitat for Dormouse. Therefore, a Dormouse presence/absence survey, utilising footprint tunnels, is recommended. This will involve one setup visit in <u>April</u> and eight survey visits between <u>May and August</u> with two surveys undertaken per month.



- 7.4. Great Crested Newt. The single pond within 250m of the site was found to be of 'good' potential to support Great Crested Newts from a desk-based HSI assessment. As such, to determine the presence/absence of GCN, an eDNA survey is advised to take place from 15th April to 30th June.
- 7.5. **Reptiles.** The tussocky areas of grassland, hedgerows and shelter belt provide suitable habitat for reptiles. Therefore, a reptile presence/absence survey is recommended, with the surveys undertaken between <u>April and September</u> in order to meet standard guidelines, with the optimal months being <u>April/May and September</u>.

Outline Mitigation Strategy

- 7.6. Based on the habitats, ecological features and fauna that may potentially be on site, subject to the further surveys as detailed in Section 7 above, the following outline mitigation measures may need to be implemented under the proposals. Further, detailed mitigation strategies may be required following the completion of the further survey work, with such details able to be secured via suitably-worded planning conditions, as recommended by relevant best practice guidance (BS 42020:2019), where necessary.
- 7.7. Hedgerow, Shelter Belt and Tree Protection. The hedgerows, shelter belt and trees to be retained within the proposed development shall be protected during construction in line with standard arboriculturalist best practice (BS5837:2012) or as otherwise directed by a suitably competent arboriculturalist.
- 7.8. Statutory Designation, Priority Habitat and Ancient Woodland Protection. In order to safeguard the nearby SSSI, LNR, ancient woodland and Priority Habitat against any potential run-off or pollution events, a number of best practice construction safeguards will be implemented, e.g. dust suppression techniques, water quality safeguards, etc.
- 7.9. **Bats Lighting.** A sensitive lighting scheme will be designed, in accordance with good practice guidance ¹⁰ to reduce potential impacts on light-sensitive bats (and other nocturnal fauna).
- 7.10. Dormice. Should Dormice or evidence of Dormouse be found during the survey work, a mitigation licence application to Natural England will need to be submitted or the site including safeguarding measures implemented during vegetation clearance and replacement habitat provision.
- 7.11. Great Crested Newt. Should the eDNA survey return a positive result for Great Crested Newt, a mitigation licence application to Natural England will need to be submitted or the site registered under a suitable district licensing scheme.



7.13. Reptiles. Should reptiles be recorded within the site during the survey work, a translocation exercise or destructive search is recommended to safeguard reptiles during site works.

¹⁰ Bat Conservation Trust and Institute of Lighting Professionals (2023) 'Guidance Note 08/23: Bats and artificial lighting at night'



7.14. Nesting Birds. No clearance of suitable vegetation should be undertaken during the birdnesting season (1st March to 31st August inclusive). If this is not practicable, any potential nesting habitat to be removed should be subject to a nesting bird check prior to removal.

8. SUMMARY AND CONCLUSIONS

8.1. The site is not subject to any ecological designations and none of the designations in the surrounding area is likely to be affected by the proposals. None of the on-site habitats qualify as important ecological features. Nevertheless, the proposed development should seek to retain those habitats of elevated ecological interest, namely the hedgerows, line of trees and shelter belt, where practicable. Further survey work is recommended to determine the status of protected species at the site. Therefore, subject to the results of further survey work and implementation of suitable mitigation where necessary, it is concluded that there are no overriding ecological constraints to development of the site.

ENCLOSED:

- Plan 6751/PEA1 Site Location Plan
- Plan 6751/PEA2 Habitats and Ecological Features
- Plan 6751/PEA3 Pond Plan

Copyright

The copyright of this document remains with Aspect Ecology. All rights reserved. The contents of this document therefore must not be copied or reproduced in whole or in part for any purpose without the written consent of Aspect Ecology.

Legal Guidance

The information set out within this report in no way constitutes a legal opinion on the relevant legislation (refer to the original legislation). The opinion of a legal professional should be sought if further advice is required.

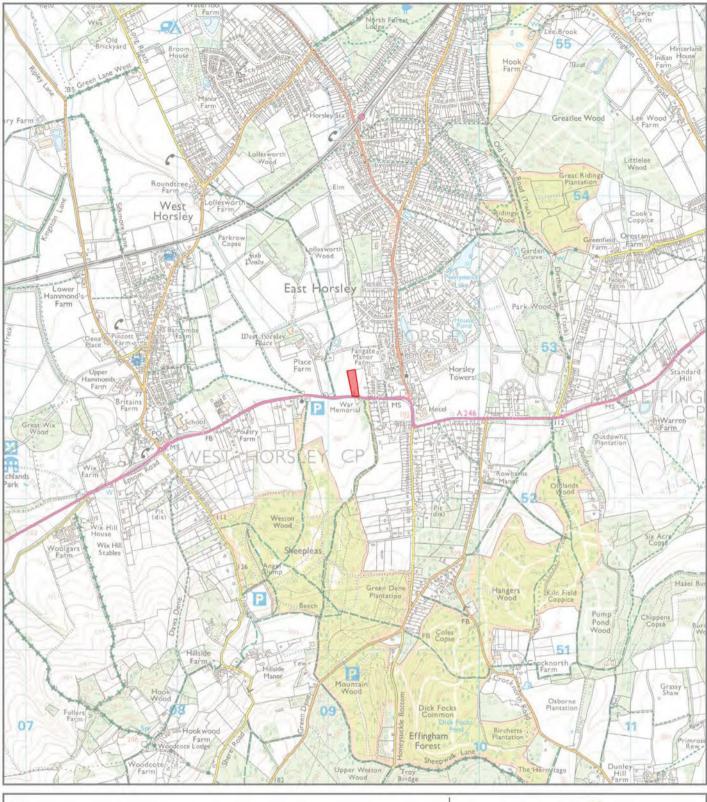
Liability

This report has been prepared for the exclusive use of the commissioning client and unless otherwise agreed in writing by Aspect Ecology, no other party may use, or rely on the contents of the report. No liability is accepted by Aspect Ecology for any use of this report, other than for the purposes for which it was originally prepared and provided. No warranty, express or implied, is made as to the advice in this report.



Plan 6751/PEA1:

Site Location Plan







Plan 6751/PEA2:

Habitats and Ecological Features

Trees with Potential Roost Features aspect ecology **APEM** Group

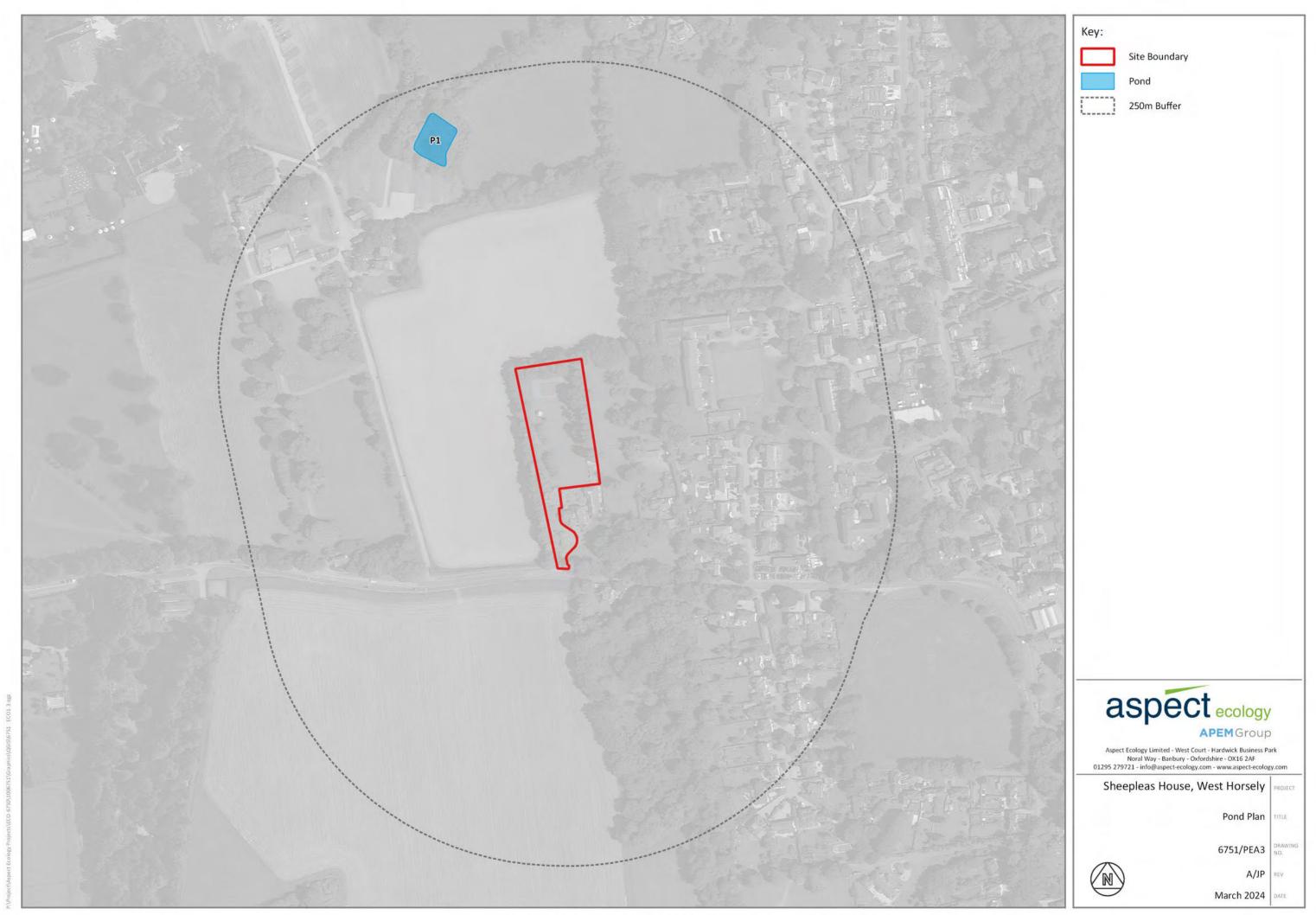
6751/PEA2

B/JP



Plan 6751/PEA3:

Pond Plan



ecology • landscape planning • arboriculture



Aspect Ecology Ltd

West Court Hardwick Business Park Noral Way Banbury Oxfordshire OX16 2AF

T: 01295 279721

E: info@aspect-ecology.com

W: www.aspect-ecology.com