

Elmfield House, Salisbury

Ecological Appraisal Survey Report

September 2023



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The views and opinions contained within the document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

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Executive Summary

Purpose of the report

To provide a Preliminary Ecological Appraisal (PEA) of the proposed development site, involving,

- Evaluation of its conservation status based on a desktop review that summarises information collated on protected species and nature conservation designations in the area.
- Assessment of habitat composition on site, derived from a Phase 1 habitat survey.
- Assessment of the likelihood of protected, or otherwise notable, species occurring on site.

Context of the development

The proposed development:

- Modernisation and conversion of Buildings 1, 2, 3 & 4.
- Construction of 10 new properties on the garden and land to the south.
- Landscaping and associated ground works.

Methods

The project requirement was to assess the existing ecological value of the site, identify potential ecological issues associated with the proposed development and make recommendations for general mitigation, compensation, enhancement and further surveys, as appropriate. A desk study and a Phase 1 habitat survey were carried out.

Key issues

The Site has HIGH habitat potential for amphibians, bats, breeding birds, mammals and reptiles. The site also has HIGH foraging and commuting potential for bats. The existing property and associated outbuildings had MODERATE or HIGH bat roost potential based on the number of PRF's present in the external fabric of the buildings.

Further surveys required

- Three bat activity surveys of Elmfield House.
- Three bat activity surveys of Yew Tree Cottage.
- Two bat activity surveys of the stable and barn.
- Great Crested Newt eDNA sampling of the water bodies onsite.
- Reptile survey of the garden and land to the south.

Conclusions

Recommendations will be made in subsequent reports, after further surveying of the site.

Declaration

I confirm that the information provided in this document is truthful and accurate at the time of completion.

Lead ecologist & Project manager: Daniel Ahern CEnv MCIEEM FLS

Signature:

Date: 26/09/2023

Assistant Ecologist & Principal Author: Peter Allen AMRSB MSc

Signature:

Date: 26/09/2023

1. Introduction

1.1. Background

- 1.1.1. In May 2023, Daniel Ahern Ecology Ltd was commissioned by Elmfield Spinney Development Ltd to undertake an ecological appraisal of a property and its surrounding land on the outskirts of Salisbury City. The purpose of the survey was to provide an assessment of the current ecological conditions and to evaluate the ecological constraints in order to inform development proposals.
- 1.1.2. The purpose of this report is to identify key ecological constraints, in order to inform the project planning such that significant ecological impacts are avoided or minimised. It also aims to highlight any further ecological surveys that may be required to inform any future Ecological Impact Assessment (EclA), so that they can be appropriately designed. Finally, the report aims to provide the information required in order to develop appropriate mitigation or compensation measures.

1.2. Site description

- 1.2.1. Elmfield House and its surrounding land, hereafter referred to as 'the Site', measures approximately 1.0 Ha and is situated between the A36 and Petersfinger Road, on the outskirts of Salisbury in Wiltshire (OS grid reference: SU 16298 29207).
- 1.2.2. The Site to the north is composed primarily of semi-improved grassland, amenity grassland in the form of a well-tended lawn, and broadleaved woodland. The site to the south which, is primarily comprised of ruderal shrubs, woodland scrub and bare ground. At the time of the survey the properties were in a good state of repair.
- 1.2.3. The proposed developments and alterations to the site are as followed:
- Modernisation and conversion of Buildings 1, 2, 3 & 4.
 - Construction of 10 new properties on the garden and land to the south.
 - Landscaping and associated ground works.

Figure 1. Site location with the red line boundary.



Figure 2. Satellite photo of the survey area with buildings numbered; Building 1 – Elmfield House, Building 2 – Yew Tree Cottage, Building 3 – stable & Building 4 – barn.



2. Planning & Legislation

2.1. Legislation

The following legislation informed the survey approach and considerations.

- The Wildlife and Countryside Act 1981 (as amended)
- The Conservation of Habitat and Species Regulations 2010 (as amended).
- Environment Act 2021

2.2. Planning policies

- 2.2.1. This report is prepared with reference to the National Planning Policy Framework 2021.

3. Methods

3.1. Desk study

- 3.1.1. The following publicly accessible websites were searched for relevant ecological information:

- <http://planningguidance.planningportal.gov.uk/>
- <http://jncc.defra.gov.uk/page-1376> (summary of nature conservation legislation)
- www.ukbap.org.uk (archived 2012)
- www.google.com for aerial photography
- <https://magic.defra.gov.uk/magicmap.aspx>

- 3.1.2. Data relating to statutory & non-statutory sites and all protected species records within 2km of the Red Line Boundary was requested from the Wiltshire and Swindon Biological Record Centre (WSBRC)

- 3.1.3. No previous reports relating to the site were available for review.

3.2. PEA Field survey

- 3.2.1. An extended Phase 1 habitat survey of the site was undertaken with reference to the Institute of Environmental Assessment's Guidelines for Baseline Ecological Assessment (IEA, 1997) and the Institute of Ecology and Environmental Management's Guidelines for Preliminary Ecological Appraisal (IEEM, 2012).

- 3.2.2. The survey was conducted on the 24th May 2023 by Daniel Ahern and Peter Allen.

- 3.2.3. The weather conditions were excellent with an average temperature of 20°C.

- 3.2.4. During the survey, dominant plant species were recorded, and habitats were classified according to their vegetation types, as identified in the Handbook for Phase 1 Habitat Survey – A technique for environmental audit (JNCC, 2010). Target notes (TN) were taken to denote species and habitats of conservation interest and to describe the vegetation in areas that were too small to map. Evidence or habitat suitable for any legally protected species was recorded, where appropriate.
- 3.2.5. The presence of any Section 9 invasive non-native plants eg Japanese knotweed, was recorded.
- 3.2.6. The results are presented in the standard format with habitat descriptions and a Phase 1 habitat map (see Figure 5).
- 3.2.7. The site was inspected for direct evidence and habitat suitability for protected and notable species. Particular attention was given to those species listed under The Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitat and Species Regulations 2010 (as amended). This included searching for signs of badger activity and habitats suitable for amphibians, dormice, bats and reptiles.
- 3.2.8. According to the Institute for Environmental Assessment (IEA, 1995), Phase 1 surveys can be undertaken all year round in order to identify any habitats on site where protected species may potentially be present.
- 3.2.9. In the event that habitats suitable for protected species are identified, it may be necessary to undertake further seasonal surveys to confirm presence/absence. In the event that no suitable habitats or features are identified, a phase 1 habitat survey is sufficient to determine the potential impacts associated with a proposed development.

3.3. Preliminary Roost Assessment – External Assessment

- 3.3.1. The exterior walls and roof of the building were viewed from ground level and features that provide potential bat access points or roosting places were noted and referred to as potential roost features (prf). Features that were looked for include:
- cracks/holes in mortar;
 - gaps between ridge tiles and ridge and roof tiles;
 - gaps in soffit boxes;
 - gaps under wooden cladding; and
 - gaps around the eaves.
- 3.3.2. Areas where bat droppings may accumulate, such as on the ground, ledges, window sills and walls, were also inspected.
- 3.3.3. Any features that may potentially be used by bats were identified and any evidence of bat activity, as listed below, were noted.

3.4. Preliminary Roost Assessment – Internal Inspection

3.4.1. The internal inspection comprised a thorough search of the roof void within the building, see Figure 2 below for a floor plan, for evidence indicative of past or current use by roosting bats. Direct evidence of bat presence may include:

- live bats or bat corpses;
- droppings;
- bat sounds;
- scratch marks;
- urine stains; and
- clean, cob-web free gaps around potential entrance points.

3.4.1. Potential access points and roosting sites were also noted. In any roof voids, a systematic search for evidence of bat presence was undertaken, concentrating on roof beams, ceiling joists and exposed surfaces. Any evidence was recorded.

3.5. Preliminary Roost Assessment - Bat Roost Assessment

3.5.1. The findings of the internal and external surveys inform an assessment of the structure, classifying the bat roost potential it has. The different classifications are set out in Table 1 below.

Table 2: Bat Roost Assessment Classifications

Classification	Description
NEGLECTIBLE	Negligible habitat features on site likely to be used by roosting bats
LOW	A structure with one or more potential roost sites which could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter or protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats, (ie unlikely to be suitable for hibernation or maternity).
MODERATE	A structure with one or more potential roost sites which could be used by bats due to their size, shelter, protection, conditions and suitable surrounding habitat but unlikely to support a roost of high conservation status.
HIGH	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and suitable surrounding habitat.
CONFIRMED	Evidence of bats roosting in the building or structure is recorded, bats, their droppings or feeding remains.

3.6. Preliminary Roost Assessment – Equipment

3.6.1. The following equipment was available to use during the survey:

- close-focusing binoculars;
- P7 Lenser torch;
- camera;
- Depstech endoscope.

3.7. Limitations

- 3.7.1. The data provided by the online resources were not exhaustive. It is possible that species and habitats not found in the data search occur within the vicinity of the proposed development site.
- 3.7.2. The data provided by the online resources were not exhaustive. It is possible that bat species not included in the data search occur within the vicinity of the proposed development site.
- 3.7.3. The internal and external inspection survey provides a snapshot of conditions at the time of survey. Bats are mobile creatures that will move into and out of areas.
- 3.7.4. The details within this report will remain valid for a period of 12 months; beyond that date it is advised that a review of ecological conditions is undertaken.

4. Baseline Ecological conditions

4.1. Desk study

- 4.1.1. The Wiltshire and Swindon Biological Records Centre (WSBRC) data search confirmed that there were three statutory and ten non-statutory wildlife sites recorded within 2km of the site. As seen in Figure 3, with the details of each in Table 2.

Figure 3. A map showing the Statutory and non-Statutory Wildlife Sites Within 2km of the site.

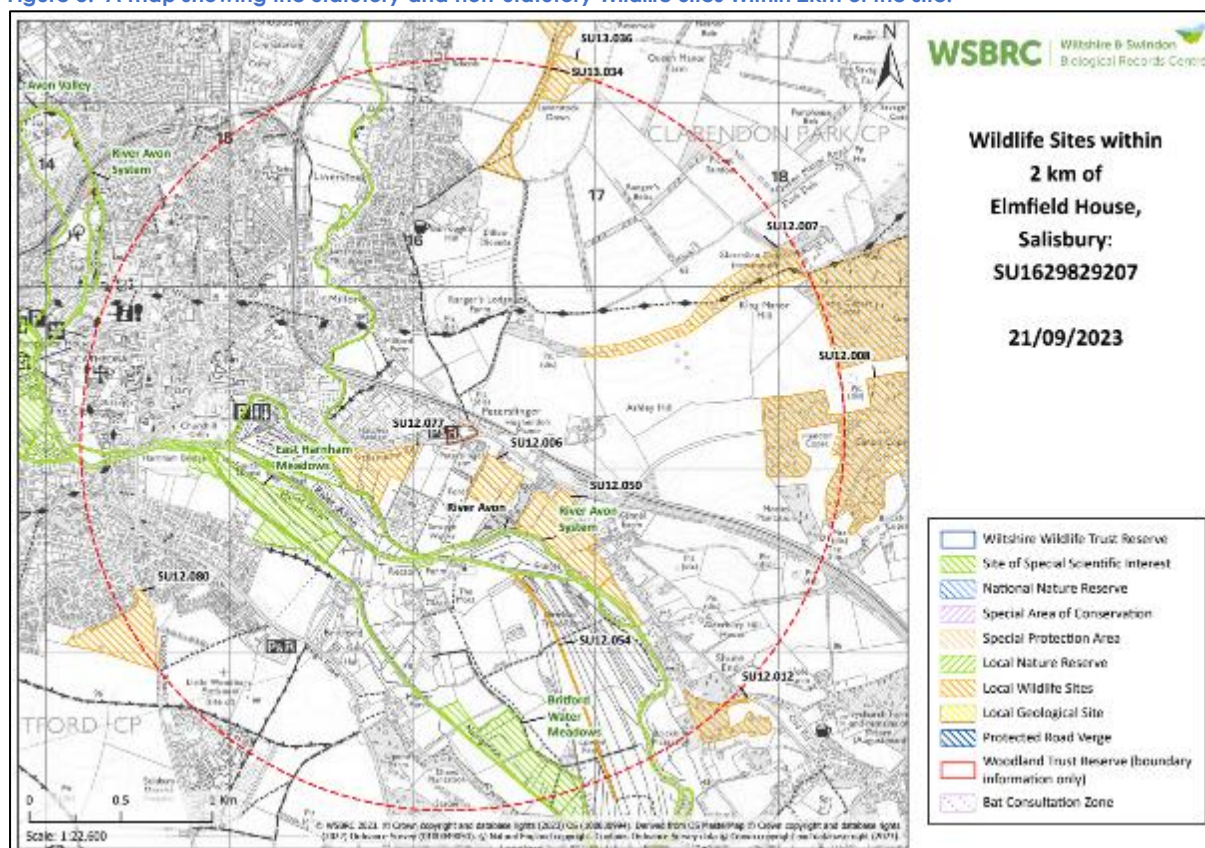


Table 2. Details of the Statutory Wildlife Sites Within 2km of the Site.

Designation	Site name	Area ha
SSSI	Britford Water Meadows	18.40
SSSI	East Harnham Meadows	17.54
SSSI, SAC	River Avon System	467.58

Table 3. Details of the non-Statutory Wildlife Sites Within 2km of the Site.

Map number	Site name	Area ha
SU12.006	Petersfinger Farm Meadows	5.6
SU12.007	King Manor Hill	12.74
SU12.008	Hendon, Canon, Little Gilbert, Great Gilbert Copses	95.6
SU12.012	Shute End Copse	5.9
SU12.050	Clarendon Grange Meadows	12.94
SU12.054	River Avon South	5.87
SU12.077	Petersfinger Wetland	8.38
SU12.080	Lime Kiln Chalk	9.63
SU13.034	Cockey Down Chalk	12.13
SU13.036	Laverstock Down	4.5

4.1.2. A total of three EPSLs had been granted for bats within 2km of the site. The licenses covered two common species, the brown long eared *Plecotus auratus* and soprano pipistrelle *Pipistrellus pygmaeus*.

Case reference	Species	Distance (m) and direction from Site
2016-25790-EPS-MIT-1	Brown long eared <i>Plecotus auratus</i>	1643m south east

	Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	
2020-50751-EPS-MIT	Brown long eared Soprano pipistrelle	1695m south east
2020-49242-EPS-MIT	Soprano pipistrelle	1871m south east

4.1.3. Protected species records for the following taxa were recorded within 2 km of the Site:

Amphibians:

Common Frog	<i>Rana temporaria</i>
Common Toad	<i>Bufo bufo</i>
Great Crested Newt	<i>Triturus cristatus</i>

Bats:

Barbastelle	<i>Barbastella barbastellus</i>
Brandt's	<i>Myotis brandtii</i>
Brown Long-eared	<i>Plecotus auritus</i>
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>
Daubenton's	<i>Myotis daubentonii</i>
Leisler's	<i>Nyctalus leisleri</i>
Natterer's Bat	<i>Myotis nattereri</i>
Noctule	<i>Nyctalus noctula</i>
Serotine	<i>Eptesicus serotinus</i>
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>
Whiskered Bat	<i>Myotis mystacinus</i>

Birds:

Corn Bunting	<i>Emberiza calandra</i>
Cuckoo	<i>Cuculus canorus</i>
Fieldfare	<i>Turdus pilaris</i>
Grasshopper Warbler	<i>Locustella naevia</i>
Greenfinch	<i>Chloris chloris</i>
Grey partridge	<i>Perdix perdix</i>
Hawfinch	<i>Coccothraustes coccothraustes</i>
Herring Gull	<i>Larus argentatus</i>
House Martin	<i>Delichon urbicum</i>
House Sparrow	<i>Passer domesticus</i>
Lapwing	<i>Vanellus vanellus</i>
Linnet	<i>Carduelis cannabina</i>
Marsh Tit	<i>Parus palustris</i>
Mistle Thrush	<i>Turdus viscivorus</i>
Pochard	<i>Aythya farina</i>
Skylark	<i>Alauda arvensis</i>
Spotted Flycatcher	<i>Muscicapa striata</i>
Starling	<i>Sturnus vulgaris</i>
Swift	<i>Apus apus</i>
Tree pipit	<i>Anthus trivialis</i>
Turtle Dove	<i>Streptopelia turtu</i>
Whinchat	<i>Saxicola rubetra</i>

Woodcock
Yellow Wagtail
Yellowhammer

Scolopax rusticola
Motacilla flava
Emberiza citrinella

Mammals:

Eurasian Badger
Eurasian Otter
European Water Vole
Hazel dormouse

Meles meles
Lutra lutra
Arvicola amphibius
Musccardinus avellanarius

Reptiles:

Common lizard
Grass Snake
Slow-worm

Zootoca vivipara
Natrix Helvetica
Anguis fragilis

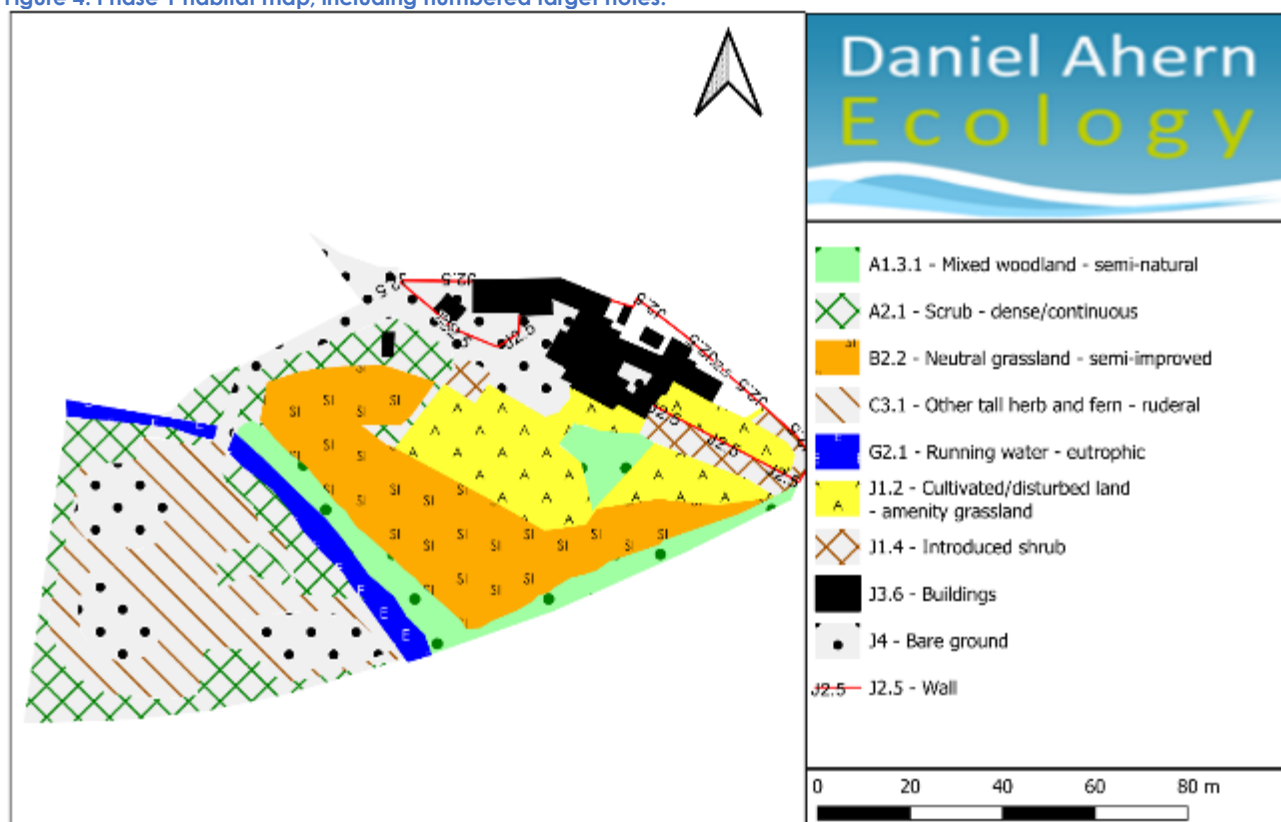
4.2. Site survey

- 4.2.1. A Phase 1 habitat map of the Site is set out in Figure 4 below.
- 4.2.2. The buildings on the site were located at the northern most boundary of the site, Building 1 - Elmfield House, Building 2 - Yew Tree cottage, Building 3 – the stable and Building 4 – the barn. A PRA was completed to individually assess the buildings for their potential to house bat roosts.
- 4.2.3. The PRA determined that Building 1 - Elmfield House had **HIGH** bat roost potential based on the number of external PRA. Internal Access was not granted. It was recommended that three activity surveys should take place between 1st May and 31st August.
- 4.2.4. Internal access was granted for Building 2 - Yew Tree Cottage. It was **CONFIRMED** to house a bat roost, based on the number of bat droppings present within the attic space. The analysis of the droppings through eDNA confirmed they belonged to common pipistrelle *Pipistrellus pipistrellus* and serotine *Eptesicus serotinus*. It was recommended that three activity surveys should take place between 1st May and 31st August.
- 4.2.5. Buildings 3 & 4 - a stable and a barn. Both were assessed as having **MODERATE** bat roost potential, due to the number of PRF's within the structures. It was recommended that two activity surveys should take place between 1st May and 31st August.
- 4.2.6. To the south of the house was an area of J1.2 – Amenity grassland. This was in the form of a well-tended garden lawn. It had low species diversity of grasses including rye grass *Lolium perenne*, annual meadow grass *Poa annua* and red fescue *Festuca rubra*.

- 4.2.7. To the south of the amenity grassland was an area of B2.2 – Semi improved neutral grassland. This area had more diversity in its sward height with wildflowers and other herbaceous plants present. This included but was not limited to creeping buttercup *Ranunculus repens*, daisy *Bellis perrenis*, dandelion *Taraxacum officinale* and white clover *Trifolium repens*. This area was part of a mosaic of other habitats such as A2.1 – Dense Scrub and A1.1.1- Semi natural broadleaved woodland, offers suitable opportunities for reptiles.
- 4.2.8. To the south and east of the semi improved grassland was an band of A1.3.1 – Semi-natural mixed woodland, with species which consisted of beech *Fagus sylvatica*, common oak *Quercus robur*, sycamore *Acer pseudoplatanus*, holly *Ilex aquifolium*, yew *Taxus baccata*, ash *Fraxinus excelsior*, scots pine *Pinus sylvestris*, wych elm *Ulmus glabra*, crack willow *Salix × fragilis* and goat willow *Salix caprea*. Within this area, was a small circular pond <2m². Water samples were taken to test for the presence of great crested newt *Triturus cristatus* eDNA. The surrounding habitat including the scrub to the south and surrounding grassland, is suitable habitat for amphibians when in their terrestrial phase.
- 4.2.9. The southern part of the site, where the proposed development will create 6 of the proposed new houses, was an area of recently cleared land. Aerial photos suggest this part of the Site was previously covered by a matrix of scrub, woodland, grassland and ornamental planting. At the time of survey the area primarily consisted of bare ground with C3.1 – Tall Ruderal herbs and A2.1 – Dense Scrub establishing. The species present were dominantly nettle *Urtica dioica*, bramble *Rubus fruticosus* and Creeping thistle *Cirsium arvense*. There were patches of bare ground and rubble present,. This area, due to its closeness to a matrix of other habitats such as A1.3.1- Semi natural mixed woodland and the scrub which surrounds the water, offers suitable opportunities for reptiles.
- 4.2.10. A ponded section of watercourse bisected the Site. This was classed as G2.1. It was heavily eutrophic and heavily shaded by tree canopies from trees on the northern bank. The banks consisted of A2.1 dense scrub and A1.3.1 mixed woodland.
- 4.2.11. Water samples were taken to test for the presence of great crested newt *Triturus cristatus* eDNA. The surrounding habitat including the scrub to the south and grassland to the north, is suitable habitat for amphibians when in their terrestrial phase.

4.2.12. A full species list from the site survey is given in Appendix 1, and target notes relating to the numbers on the Phase 1 map are given in Appendix 2.

Figure 4. Phase 1 habitat map, including numbered target notes.



4.2.13. The survey recorded the following potential for protected species and groups to be present.

- Amphibians: A moderately sized pond was recorded within the Site boundary. The terrestrial habitat had HIGH amphibian potential. There were records of Great Crested Newt found within 2km of the Site.
- Badgers: MODERATE POTENTIAL for badgers on Site, records indicate they are within 2km.
- Bats; HIGH foraging and commuting potential within the Site boundary. Building 1 & 2 had HIGH and CONFIRMED bat roost potential respectively. Building 3 & 4 had MODERATE bat roost potential. A number of the mature trees had LOW bat roost potential.
- Dormice: Records found within 2km, with suitable habitat found. LOW habitat connectivity.
- Otter: MODERATE potential for this species to commute through the Site. LOW foraging potential given the poor water quality. There were records found within 2km.
- Reptiles: HIGH potential for this group, a number of potential hibernacula in the areas of woodland with bare ground present onsite.
- Water vole: LOW potential for this species due to lack of suitable habitat within the riparian corridor of the ponded waterbody. There were records found within 2km.

5. Ecological constraints and opportunities

5.1. Designated nature conservation sites

- 5.1.1. The Wiltshire and Swindon Biological Records Centre (WSBRC) data search confirmed that there were three statutory and 10 non-statutory wildlife sites recorded within 2km of the site.
- 5.1.2. A total of three EPSLs had been granted for bats within 2km of the site. The licenses covered two common species, the brown long eared *Plecotus auratus* and soprano pipistrelle *Pipistrellus pygmaeus*.

5.2. Habitats

- 5.2.1. The proposed development of the site will result in the loss and modification of the current heterogeneous mix of habitats recorded within the Site.
- 5.2.2. Site clearance mitigation and habitat enhancement should be set out in a Biodiversity Mitigation and Enhancement Strategy (BMES).
- 5.2.3. A Biodiversity Net Gain (BNG) assessment should be prepared based on the results of this survey and the landscape plan for the proposed development.

5.3. Fauna

- 5.3.1. The site has HIGH habitat potential for amphibians, bats, breeding birds, reptiles and LOW to MODERATE potential for otters, and water voles.
- 5.3.2. The following surveys are recommended:
 - Three bat activity surveys of Elmfield House.
 - Three bat activity surveys of Yew Tree Cottage.
 - Two bat activity surveys of the stable and barn.
 - Great Crested Newt eDNA sampling of the water bodies onsite.
 - Reptile survey of the garden and land to the south.

6. Conclusions

- 6.1.1. A BNG assessment should be prepared.
- 6.1.2. Habitat enhancement shall be laid out in subsequent reports, based on the results of the following surveys:
 - Three bat activity surveys of Elmfield House.
 - Three bat activity surveys of Yew Tree Cottage.
 - Two bat activity surveys of the Stable and barn.
 - Great Crested Newt eDNA sampling of the water bodies onsite.

- Reptile survey of the garden and land to the south

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8. Appendices

Appendix 1

Photo 1 – The main house



Photo 2 – Lawn to the south of the main house - amenity grassland lawn



Photo 3 – Example of the woodland.



Photo 4 – The small pond within the semi-improved grassland. Target note 1.



Photo 5 – The water and bridge which separates the northern and southern sites.



Photo 6 – Building 3, the stable. Adjacent to Building 1.



Photo 7 – The garden viewed from the north west with the mixed woodland



Photo 8 – Recently cleared southern section of the survey area.



Photo 9 – Building 4, the barn.



Photo 10 – The ponded waterbody which bisected the Site.

