HIGHWORTH GOLF COURSE

INTERIM PRELIMINARY ECOLOGICAL APPRAISAL

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Prepared for:

The CDS Group

EXECUTIVE SUMMARY

- RPS were commissioned by The CDS Group to undertake a Preliminary Ecological Appraisal (PEA) of Highworth Golf Club, Swindon, SN6 7BT. This comprised a desk study, Phase 1 habitat survey and an ecological scoping survey which assessed the potential of the site to support species of conservation concern or other species which could present a constraint to the development of the site.
- The proposals involve the re-development of the existing golf course into a biodiversity rich open space along with some recreational development, including sports pitches.
- The site is approximately 42 ha in size and comprises poor-semi-improved grassland, semi-improved acidic grassland, broadleaved woodland, plantation woodland and scattered trees, scattered scrub, various hedgerows and one remaining clubhouse building.
- There is one statutory designated site within 2 km of the site, Stanton Park Local Nature Reserve. Due to the nature of the proposed development and the intervening habitats, there is unlikely to be any significant adverse effect as a result of any works on site.
- A small area of semi-improved acid grassland was present on site. Although it is unlikely to qualify as a UK BAP Priority Habitat under Section 41 of the NERC Act, it should be retained and protected during any works on site. The areas of broadleaved woodland, the ponds and any hedgerows should be protected whilst any works are ongoing and enhanced as part of the proposed development. A Landscape and Ecology Management Plan (LEMP) should be produced which would detail the long-term management of these features for ecological benefit.
- As a result of the data search, five designated sites were found within 2km of the site. One statutory site (Stanton Park Local Nature Reserve) is found 1.69 km away from the site boundary. Three Local Wildlife Sites and one Local Geological site make up the remainder of the designated sites.
- Several protected species were recorded within 2km of the site within the last ten years including several mammals and birds, one amphibian species (common frog *Rana temporaria*), a flowering plant species (Dwarf Spurge *Euphorbia exigua*) and several insects, including thirty-nine moth species and the stag beetle *Lucanus cervus*.
- The site has potential to support various protected species with habitat suitable for roosting and commuting / foraging bats, nesting birds, reptiles, great crested newts, badgers and dormice. Surveys to assess these species current use of the site are outlined in this report which would provide a baseline to use when considering any future monitoring.
- The results of the recommended phase 2 surveys would inform any areas of site that should be retained / protected throughout the development, and where mitigation may be required to offset the loss of any habitat that is converted into the proposed sports pitches. An ecology survey report produced upon completion of these surveys would also offer recommendations to enhance the site for these species post re-development.
- Considering the habitats currently present on site and the nature of the proposed development there is opportunity to significantly achieve Biodiversity Net Gain, thereby greatly enhancing the site for its ecological value.

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1 INTRODUCTION

1.1 Purpose and scope of this report

1.1.1 RPS was commissioned by The CDS Group to undertake a Preliminary Ecological Appraisal (PEA) of Highworth Golf Club, Swindon, SN6 7BT.

1.1.2 To undertake an initial assessment of the potential ecological impact of the proposals, a desk study, Phase 1 Habitat Survey, and a preliminary protected species assessment were carried out. This is termed as a Preliminary Ecological Appraisal Report (PEAR) in accordance with CIEEM (2017). This assessment is considered 'preliminary' until any required protected species, habitat or invasive species surveys are completed, and the results incorporated into a final Ecological Appraisal or Ecological Impact Assessment (EcIA) which supports the planning application.

1.1.3 The PEA aims to:

- undertake a desk-based review of designated sites and records of protected species and other species that could present a constraint;
- map and assess the habitats present on site;
- assess the site for potential to support protected species or other species that could present a constraint, and make appropriate recommendations for further survey work if necessary;
- provide outline options for mitigation measures as appropriate; and
- make recommendations for appropriate biodiversity enhancements in line with national and local planning policy.

1.1.4 This report pertains to these results only; recommendations included within this report are the professional opinion of an experienced ecologist and therefore the view of RPS. The surveys and desk-based assessments undertaken as part of this review and subsequent report including the Ecological Appraisal Notes are prepared in accordance with the British Standard for Biodiversity Code of Practice for Planning and Development (BS42020:2013).

1.2 Study area and Zone of Influence

1.2.1 The site is located in Botany, Swindon. The site is approximately 42 ha in size. The National Grid coordinates for the centre of the site are SU 19577 91623.

1.2.2 The site comprises poor-semi-improved grassland, semi-improved acidic grassland, broadleaved woodland, plantation woodland and scattered trees, scattered scrub, various hedgerows and one remaining clubhouse building.

1.2.3 The site location is shown on Figure 1.1. Aerial imaging available via Google Earth Pro was also reviewed to assess the site in relation to its context in the wider landscape. The immediate surrounds of the site are largely agricultural with the town of Highworth located to the north and an area of broadleaved woodland that extends into the west of the site. There is another golf course currently in use to the east of the site separated by the A361 road. The wider environs are rural in nature, comprising expanses of arable fields and woodland, and further afield to the south of the site is the town of Swindon

1.2.4 The term Zone of Influence is used to describe the geographic extent of potential impacts of a proposed development. The Zone of Influence is determined by the nature of the development and also in relation to designated sites, habitats or species which might be affected by the proposals.

1.2.5 For this site, the Zone of Influence is considered to be land on and immediately adjacent to the site, including a 30m buffer for badger setts and 500m of suitable habitat for GCN.

Figure 1.1: Site location plan.

1:5000@A3

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Swindon Borough Council 100024296 2013

1.3 Development proposals

1.3.1 The proposals involve the re-development of the existing golf course into a biodiversity rich open space along with some recreational development including sports pitches.

1.3.2 No proposed site plans have been provided.

1.4 Legislation and policy

1.4.1 Relevant legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to throughout this report where appropriate. Their context and application is explained in the relevant sections of this report.

1.4.2 The relevant articles of legislation are:

- The National Planning Policy Framework (NPPF, 2021);
- ODPM Circular 06/2005 (retained as Technical Guidance on NPPF 2021);
- Local planning policies (Swindon Local Plan, Highworth Neighbourhood Plan);
- The Conservation of Habitats and Species Regulations 2019;
- The Wildlife and Countryside Act 1981 (as amended);
- The Protection of Badgers Act 1992;
- The Countryside and Rights of Way Act 2000;
- The Hedgerow Regulations 1997;
- The Natural Environment and Rural Communities Act 2006; and
- National / Local Biodiversity Action Plan for Wiltshire and Swindon.

1.4.3 A summary of legislation relevant to protected or other species identified as potential constraints in this report is provided in Appendix A.

2 METHODS

2.1 Desk Study

2.1.1 Ecological records within a 2 km radius of the site were requested from Wiltshire and Swindon Biological Records Centre (WSBRC). Data requests were limited to records for protected species recorded within the last ten years and sites of nature conservation interest within 2 km of the site. This included a review of existing statutory sites of nature conservation interest, such as Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), Special Area of Conservation (SACs) and National Nature Reserves (NNRs), and non-statutory sites, such as Sites of Importance for Nature Conservation (SINCs) and Local Wildlife Sites (LWSs).

2.1.2 Locations of statutory designated sites were accessed via the government 'MAGIC' website (MagicMap, 2022).

2.1.3 A 1:25,000 OS map was used to identify nearby features such as ponds or green corridors that could provide habitat or connectivity to other areas.

2.2 Ecological Appraisal

2.2.1 The ecological appraisal consisted of two components: a Phase 1 Habitat survey and a scoping survey for protected species and other species of conservation concern which could present a constraint to development.

2.2.2 The walkover survey was undertaken on the 1st of September 2022 but suitably experienced RPS ecologists, Harriet Miles BSc and Samuel Merriman-Johnson BSc.

2.2.3 The Phase 1 Habitat surveys followed the standard methodology (JNCC, 2010), and as described in the Guidelines for Preliminary Ecological Assessment (IEEM, 2012). In summary, this comprised walking over the survey area and recording the habitat types and boundary features present.

2.2.4 A protected species scoping survey was carried out in conjunction with the Phase 1 Habitat survey. The site was assessed for its suitability to support protected species, in particular great crested newts *Triturus cristatus*, reptiles, birds, badgers *Meles meles*, bats, and other species of conservation importance that could pose a planning constraint.

2.2.5 The surveyor looked for evidence of use including signs such as burrows, droppings, footprints, paths, hairs, refugia and particular habitat types known to be used by certain groups such as ponds. Any mammal paths were also noted down and where possible followed. Fence boundaries were walked to establish any entry points or animal signs such as latrines. Areas of bare earth were inspected for mammal prints. Areas of habitat considered suitable for protected species or those of conservation interest were recorded.

2.3 Impact Appraisal

2.3.1 The overall ecological appraisal is based on the standard best practice methodology provided by the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017). The assessment identifies sites, habitats, species and other ecological features that are of value based on factors such as legal protection, statutory or local site designations such as Sites of Special Scientific Interest (SSSI) or Local Wildlife Sites (LWS) or inclusion on Red Data Book Lists or Biodiversity Action Plans.

2.3.2 The assessment also refers to planning policy guidance (e.g. NPPF) where relevant to relate the value of the site and potential impacts of development to the planning process, identifying constraints and opportunities for ecological enhancement in line with both national and local policy.

2.3.3 The methodology for evaluation of the nature conservation value of ecological features affected by development (ecological receptors) is adapted from the current Charted Institute of Ecology &

Environmental Management guidelines for Ecological Impact Assessment (CIEEM, 2016). These guidelines recommend assignment of value (or potential value) to ecological receptors in accordance with the following scale:

1. International;
2. UK;
3. National (i.e. England/Northern Ireland/Scotland/Wales);
4. Regional;
5. County (or Metropolitan - e.g. in London);
6. District (or Unitary Authority, City, or Borough);
7. Local or Parish; and/or
8. within immediate zone of influence only.

2.3.4 Following on from the above, potential constraints to development are identified on that basis, with recommendations for further, more detailed surveys made as appropriate, for example to fully investigate botanical value or to confirm presence / likely absence of a protected species

2.3.5 In appraising any impacts, the review considers the client's site proposals and any subsequent recommendations made are proportionate and appropriate to the site and have considered the Mitigation Hierarchy as identified below:

- **Avoid**: Provide advice on how the development may proceed by avoiding impacts to any species or sites by either consideration of site design or identification of an alternative option.
- **Mitigate:** Where avoidance cannot be implemented mitigation proposals are put forward to minimise impacts to species or sites as a result of the proposals. Mitigation put forward is proportionate to the site.
- **Compensate:** Where avoidance cannot be achieved any mitigation strategy will consider the requirements for site compensatory measures.
- **Enhance:** The assessment refers to planning policy guidance (e.g. NPPF) to relate the ecological value of the site and identify appropriate and proportionate ecological enhancement in line with both national and local policy.

2.3.6 When describing impacts on ecosystem structure and function, reference is made to the following aspects where appropriate:

1. extent;
2. magnitude;
3. duration;
4. reversibility; and
5. timing and frequency.

2.3.7 Understanding the nature of the impact enables determination of the effect on the ecological integrity of the ecological receptor. This in turn is assessed against the importance of the receptor to determine the significance of the effect on nature conservation interests as being (i) not significant, or (ii) a significant positive or adverse impact.

2.4 Limitations

Desk Based Assessment

2.4.1 The desk study data is third party controlled data, purchased for the purposes of this report only. RPS cannot vouch for its accuracy and cannot be held liable for any error(s) in these data.

Survey

2.4.2 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment.

2.4.3 The protected/notable species assessment provides a preliminary view of the likelihood of these species occurring on the site, based on the suitability of the habitat, known distribution of the species in the local area provided in response to our enquiries and any direct evidence on the site. It should not be taken as providing a full and definitive survey of any protected/notable species group.

2.4.4 During the initial site walkover one area of the site at the north-eastern boundary was inaccessible due to it being fenced off with a locked gate.

Accurate Lifespan of Ecological Data

2.4.5 The majority of ecological data remain valid for only short periods due to the inherently transient nature of the subject. The survey results contained in this report are considered accurate for two years, assuming no significant considerable changes to the site conditions.

3 RESULTS

3.1 Designated Sites

3.1.1 There is one statutory designated site for nature conservation value within 2 km of the site; the Stanton Park Local Nature Reserve (LNR) 1.84 km from the site.

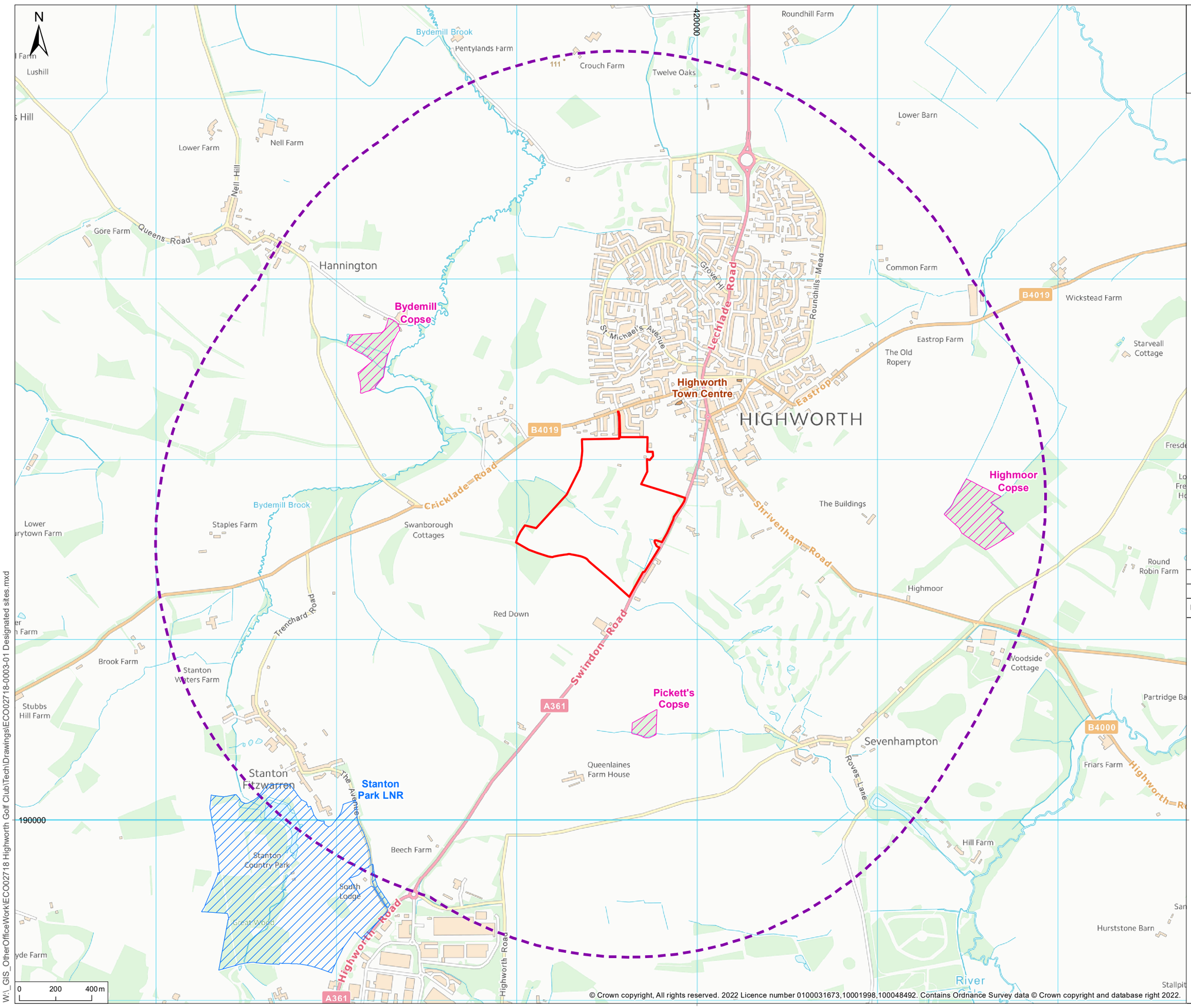
3.1.2 Four non-statutory sites are found within 2km of the site, including three Local Wildlife Sites (the closest of which is Pickett's Copse, 0.64km away) and a Local Geological Site (Highworth Town Centre, which is 0.24km away).

3.1.3 A summary of these sites is provided in Table 3.1 below.

Table 3.1: Designated sites within 2 km of the study area

Site name	Type	Approx. area (ha)	Interest Features	Distance from site (km)
Statutory Sites				
Stanton Park	LNR	74	• Wildflower hay meadows and parkland, sheep and Aberdeen Angus cattle, Ha-Ha, semi-ancient woodland, lake and dam c1804, folly and old farm complex (currently under regeneration as a Field Study Centre). Ponds, reedbeds and hedgerows. • 500 species of fungi have been recorded in the woodlands. The reserve is good for birds such as waterfowl, kingfishers, buntings and warblers as well as amphibians, beetles, dragonflies and roe deer.	1.69
Non-statutory Sites				
Bydemill Copse	LWS	5.36	A small area of ancient semi-natural broadleaved woodland.	1.12
Pickett's Copse	LWS	1.48	A small ancient woodland partly semi-natural but mostly replanted and with large open areas.	0.64
Highmoor Copse	LWS	8.02	Ancient semi-natural broadleaved woodland.	1.44
Highworth Town Centre	LGS	0.15	This is chosen to show local building stones (Corallian) from many local quarries now filled in. Numerous fossils and sedimentary structures well exposed.	0.24

Abbreviations used in Table 3.1: LNR: Local Nature Reserve; LWS: Local Wildlife Site; LGS: Local Geological Site; NS: Not supplied; ha: hectare.



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Legend

- Site boundary
- Survey area (2km buffer)
- Local Nature Reserve (LNR)
- Local wildlife sites
- Local geological sites

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Title: Designated sites within 2km

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3.2 Species

3.2.1 Records of protected species were obtained from the WSBRC. A number of species of conservation importance or otherwise notable were recorded within the 2 km search radius of the site. A summary of these records is provided in Table 3.2.

3.2.2 In order to simplify the results, only records of species from the last 10 years are shown. In addition, only data with a 6-figure grid reference resolution or higher are provided, since locations given at a lower resolution do not allow accurate calculation of distance to the site boundary.

Table 3.2: Species records from the last 10 years within 2 km of the site

Common name	Scientific name	Nearest distance from site (km)	Year of most recent record	Conservation Status
Mammals (excl. bats)				
European Water Vole	*Arvicola amphibius*	0.854	2021	RLGB.EN, Sect.41, UKBAP, WCA5/9.4c
West European Hedgehog	*Erinaceus europaeus*	0.000	2021	RLGB.VU, Sect.41, UKBAP
Brown Hare	*Lepus europaeus*	0.139	2020	Sect.41, UKBAP
Eurasian Badger	*Meles meles*	0.335	2020	PBA
Mammals (bats)				
Bat	*Chiroptera*	0.543	2020	County, HabRegs2, HSD2p, HSD4, RLGB.CR, RLGB.DD, RLGB.EN, RLGB.Lr(NT), RLGB.VU, Sect.41, UKBAP, WCA5/9.4c
Western Barbastelle bat	*Barbastella barbastellus*	0.543	2020	County, HabRegs2, HSD2p, HSD4, RLGB.VU, Sect.41, UKBAP, WCA5/9.4c
Serotine bat	*Eptesicus serotinus*	0.543	2020	County, HabRegs2, HSD4, RLGB.VU, WCA5/9.4c
Myotis spp.	*Myotis spp.*	0.543	2020	County, HabRegs2, HSD2p, HSD4, RLGB.CR, RLGB.DD, Sect.41, UKBAP, WCA5/9.4c
Noctule spp.	*Nyctalus spp.*	0.543	2020	County, HabRegs2, HSD4, RLGB.Lr(NT), Sect.41, UKBAP, WCA5/9.4c
Common Noctule	*Nyctalus noctula*	0.543	2021	County, HabRegs2, HSD4, Sect.41, UKBAP, WCA5/9.4c
Pipistrelle Bat	*Pipistrellus spp.*	0.543	2021	County, HabRegs2, HSD4, RLGB.Lr(NT), Sect.41, UKBAP, WCA5/9.4c
Common Pipistrelle	*Pipistrellus pipistrellus*	0.543	2021	County, HabRegs2, HSD4, WCA5/9.4c
Soprano Pipistrelle	*Pipistrellus pygmaeus*	0.543	2021	County, HabRegs2, HSD4, Sect.41, UKBAP, WCA5/9.4c
Brown Long-eared Bat	*Plecotus auritus*	0.543	2021	County, HabRegs2, HSD4, Sect.41, UKBAP, WCA5/9.4c
Amphibians				
Common Frog	*Rana temporaria*	0.687	2014	HSD5

Birds				
Skylark	*Alauda arvensis*	0.139	2020	BRed, Sect.41
Swift	*Apus apus*	0.253	2019	BRed
Dunlin	*Calidris alpina*	0.139	2020	BRed
Cetti's Warbler	*Cettia cetti*	0.139	2020	WCA1i
Greenfinch	*Chloris chloris*	0.139	2021	BRed
Cuckoo	*Cuculus canorus*	0.139	2020	BRed, Sect.41, UKBAP
Corn Bunting	*Emberiza calendra*	0.139	2020	BRed
Yellowhammer	*Emberiza citrinella*	0.139	2020	BRed, Sect.41, UKBAP
Reed Bunting	*Emberiza schoeniclus*	0.139	2020	Sect.41, UKBAP
Herring Gull	*Larus argentatus*	0.139	2020	BRed
Linnet	*Linaria cannabina*	1.273	2020	BRed
Red Kite	*Milvus milvus*	0.076	2017	BD1, WCA1i
House Sparrow	*Passer domesticus*	1.046	2017	BRed, Sect.41, UKBAP
Grey Partridge	*Perdix perdix*	1.273	2020	BRed, Sect.41, UKBAP
Starling	*Sturnus vulgaris*	0.139	2020	BRed
Mistle Thrush	*Turdus viscivorus*	0.237	2020	BRed
Lapwing	*Vanellus vanellus*	0.309	2021	BRed, Sect.41, UKBAP
Invertebrates				
Stag Beetle	*Lucanus cervus*	1.464	2015	HSD2p, Sect.41, UKBAP
Rugged Oil Beetle	*Meloe rugosus*	1.031	2019	Sect.41, UKBAP
Small Blue Butterfly	*Cupido minimus*	1.083	2020	RLGB.Lr(NT), Sect.41, UKBAP
Knot Grass Moth	*Acronicta rumicis*	1.031	2018	Sect.41, UKBAP
Beaded Chestnut Moth	*Agrochola lynchnidis*	1.031	2021	Sect.41, UKBAP
Green-brindled Crescent Moth	*Allophyes oxyacanthae*	1.031	2021	Sect.41, UKBAP
Mouse Moth	*Amphipyra tragopoginis*	1.031	2015	Sect.41, UKBAP
Brown-spot Pinion Moth	*Anchoscelis litura*	1.031	2015	Sect.41, UKBAP
Large Nutmeg Moth	*Apamea anceps*	1.031	2015	Sect.41, UKBAP
Dusky Brocade Moth	*Apamea remissa*	1.031	2014	Sect.41, UKBAP
Deep Brown Dart Moth	*Aporophyla lutulenta*	1.031	2021	Sect.41, UKBAP
Garden Tiger Moth	*Arctia caja*	1.031	2014	Sect.41, UKBAP
Sprawler Moth	*Asteroscopus sphinx*	1.031	2014	Sect.41, UKBAP

Centre-barred Sallow Moth	*Atethmia centrago*	1.031	2014	Sect.41, UKBAP
Bulrush Veneer Moth	*Calamotropha paludella*	1.087	2014	Nb
Mottled Rustic Moth	*Caradrina morpheus*	1.031	2021	Sect.41, UKBAP
Broom Moth	*Ceramica pisi*	1.031	2014	Sect.41, UKBAP
Sallow Moth	*Cirrhia icteritia*	1.031	2021	Sect.41, UKBAP
Small Square-spot Moth	*Diarsia rubi*	1.031	2021	Sect.41, UKBAP
Small Pheonix Moth	*Ecliptopera silaceata*	1.031	2014	Sect.41, UKBAP
September Thorn Moth	*Ennomos erosaria*	1.031	2014	Sect.41, UKBAP
Dusky Thorn Moth	*Annomos fuscantaria*	1.031	2012	Sect.41, UKBAP
August Thorn Moth	*Ennomos quercinaria*	1.031	2014	Sect.41, UKBAP
Small Emerald Moth	*Hemistola chrysoprasaria*	1.031	2015	Sect.41, UKBAP
Ghost Moth	*Hepialus humuli*	1.031	2015	Sect.41, UKBAP
Rustic Moth	*Hoplodrina blanda*	1.031	2018	Sect.41, UKBAP
Rosy Rustic Moth	*Hydraecia micacea*	1.031	2015	Sect.41, UKBAP
Shoulder-striped Wainscot Moth	*Leucania comma*	1.087	2015	Sect.41, UKBAP
Rosy Minor Moth	*Litoligia literosa*	1.031	2014	Sect.41, UKBAP
Brindled Beauty Moth	*Lycia hirtaria*	1.031	2014	Sect.41, UKBAP
Lackey Moth	*Malacosoma neustria*	1.214	2021	Sect.41, UKBAP
Dot Moth	*Melanchra persicariae*	1.031	2015	Sect.41, UKBAP
Spindle Knot-horn Moth	*Nephopterix angustella*	1.031	2015	Nb
Powdered Quaker Moth	*Orthosia gracilis*	1.031	2014	Sect.41, UKBAP
Large Wainscot Moth	*Rhizedra lutosa*	1.031	2021	Sect.41, UKBAP
Shaded Broad-bar Moth	*Scotopteryx chenopodiata*	1.031	2015	Sect.41, UKBAP
White Ermine Moth	*Spilosoma lubricipeda*	1.031	2015	Sect.41, UKBAP
Buff Ermine Moth	*Spilosoma lutea*	0.821	2021	Sect.41, UKBAP
Feathered Gothic Moth	*Tholera decimalis*	1.031	2021	Sect.41, UKBAP
Blood-vein Moth	*Timandra comae*	1.031	2018	Sect.41, UKBAP
Cinnabar Moth	*Tyria jacobaeae*	1.031	2014	Sect.41, UKBAP

Oak Hook-tip Moth	*Watsonella binaria*	1.031	2015	Sect.41, UKBAP
Flowering Plants				
Dwarf Spurge	*Euphorbia exigua*	0.039	2017	RLGB.VU

Abbreviations used in Table 3.2: BRed: Bird Population Status- red; County: Wiltshire County Notable; HabsReg2: The Conservation (Natural Habitats, &c.) Regulations 1994 (Schedule 2); HSD2p: Habitats and Species Directive, Annex 2- priority species; HSD4: Habitats and Species Directive, Annex 4; HSD5: Habitats and Species Directive, Annex 5; Nb: Nationally Notable B; PBA: Protection of Badgers Act (1992); RLGB (CR, DD, EN, Lr(NT), VU): IUCN Red Data List (Critically Endangered, Data Deficient, Endangered, Lower Risk (Near Threatened), Vulnerable); Sect.41: Natural Environment and Rural Communities Act 2006 – Species of Principal Importance in England (s41); UKBAP: UK Biodiversity Action Plan priority species; WCA5/9.4c: Wildlife and Countryside Act 1981 Schedule 5 Section 9.4c; WCA1i: Wildlife and Countryside Act Schedule 1 Part 1.

3.3 Phase 1 Habitat Survey

3.3.1 The survey results are presented in the form of a map with the habitat types and boundary features marked (Figure 3.2). An explanation of target notes from Figure 3.2 can be found in Appendix B. Photographs can be found in Appendix C.

3.3.2 Descriptions of the habitat types and boundary features are detailed below. Habitat descriptions are defined by broad habitat types (JNCC, 2010).

Poor semi-improved grassland

3.3.3 Most of the site was dominated by poor semi-improved grassland fields, which had a sward height of around 0.5 m in the centre of each field and was cut to ground height to make walkways across the old golf course.

3.3.4 The dominant species in the western field was red fescue *Festuca rubra*, whereas the eastern fields were dominated by cocksfoot *Dactylis glomerata* with ragwort S*enecio jacobaea* and marsh thistle *Cirsium paulstre* abundant throughout the whole site. Occurring frequently in all fields was annual meadow grass *Poa annua*, common bent *Agrostis capilaris* and meadow sweet *Filipendula ulmaria*. Occasional species present included field bindweed *Convolvulus arvensis*, yarrow *Achillea milledolium*, clover sp. *Trifolium*. dandelion sp. *Taraxacum*, broadleaved plantation *Plantago major*, barley *Hodeum vulgare*, creeping thistle *Cirsium arvense*, cinqfoil *Potentila sp.*, willow herb *Epilobium sp*., bristly ox tongue *Helminthotheca echioides* and hawksbit *Leontodon hispidus*.

3.3.5 Near the plantation woodland areas there were multiple silver poplar *Populus alba* saplings and in the wetter areas there was horsetail *Equisetum* present. Species that occurred more rarely throughout the site were thistle, spikerush *Eleocharis palustris*, nettles *Urtica dioica*, wild carrot *Daucus carota*, hogweed *Heracleum mantegazzianum*, greater dock *Rumex hydrolapathum*, silverweed *Potentialla anserina*, ox eye daisy *Leucanthemum vulgare*, buttercup *Ranunculus sp.*, lesser chickweed *Stellaria pallida*, scabious sp. and lesser knapweed *Centaurea nigra*.

Semi-improved acidic grassland

3.3.6 One of the areas of grassland on site was relatively species rich with some grasses present that indicated acidic soil type. Additional species to the surrounding poor SI grass included salt meadow rush *Juncus gerardii*, timothy grass *Phleum pratense*, hedgewound wort *Stachys sylvaticaand* cranesbill *geranium sp..*

Plantation woodland

3.3.7 There were several areas of plantation woodland on site, most likely planted around 10 years ago and use to create natural separation between parts of the golf course. These areas were birch *Betula sp.* dominated and some of the more southern areas had a bramble *Rubus fruticosus* understorey.

Broadleaved woodland

3.3.8 Two areas of broadleaved woodland were located within the survey boundary. The eastern strip that separates the site from the main road was relatively immature compared to the larger area of woodland that extended out of the west of the site, the species composition was similar in both; ash *Fraxinus sp*., willow *Salix sp*., poplar, birch, hazel *Corylus sp*. and oak *Quercus robur*. The understorey of the western areas was largely nettles, lord and ladies *Arum maculatum* and ivy *Hedera helix* covered, with the eastern strip dominated by common dogwood *Cornus sanguinea*.

Scattered trees

3.3.9 Through the site there were areas of scattered trees, which appeared to be planted separating areas of the golf course, in lines and in denser areas. Most of the trees were broadleaved and semi-mature and species present included maple *Acer sp*., cherry *Prunus sp*., silver poplar, beech *Fagus sylvatica*, oak, ash, willow, birch, with one coniferous tree (cypress) in the northwest corner of the site.

Species-poor defunct hedgerow

3.3.10 The hedgerows separating the central areas of the site were fairly gappy and was made up of only a few native species; hawthorn *Crataegus*, crab apple *Malus sylvestris* and *Cyclamen heredifolium*.

Species-poor intact hedgerow

3.3.11 The hedgerows at the western and southern boundaries were more intact and relatively more species rich, with elder Sambucus nigra, hawthorn and crab apple dominating. Ash was also abundant along the western boundary. In the southwest corner of the site field maple, elm *Ulmus* and blackthorn *Prunus spinosa* occurred frequently. Occasional species included bramble, cherry, dogrose, sweet briar *Rosa rubiginoa* and bitter dock *Rumex obtusifolius*, with Irish ivy *Hedera hibernica* rarely found and mainly concentrated in the hedgerow connecting to the woodland.

Scrub

3.3.12 There was one main area of dense bramble scrub in the southeast corner of the site. There were also three ground level planters in the recreation ground car park at the northeast boundary of the site which were covered by bramble scrub.

3.3.13 The other areas of scrub on site were scattered throughout, largely associated with the boundaries and some of the woodland. Species present in these areas included firethorn *Pyracantha*, snowberry *Symphoricarpos*, Wilsons honeysuckle *Lonicera nitida*, *Bryonia sp*., nettles and nightshade *Atropa belladona*.

Introduced shrub

3.3.14 Adjacent to the rear gardens at the northern site boundary there was a strip of ornamental planting with species present including buddleja *Buddleia davidii*, lemonbalm *Melissa officinalis*, Jerusalem sage *Phlomis fruticosa*, evergreen spindle *Euonymus europaeus*, lily *Lilium sp*., common golden rod *Solidago*, lilac bush *Syringa vulgaris* and mugwort *Artemisia vulgaris*.

Standing water

3.3.15 There were three ponds present on site, all in the southern half. They were all of a similar size and had 15-20% cover by emergent aquatic vegetation.

Ditch

3.3.16 There were two semi-wet ditches on site, one of which appeared to be an extension of a man-made drainage ditch (eastern fields). The other ditch ran through the woodland and off site, and although there were bridges present this was completely dry at the time of the survey, apart from the few metres that were visible before it entered one of the ponds.

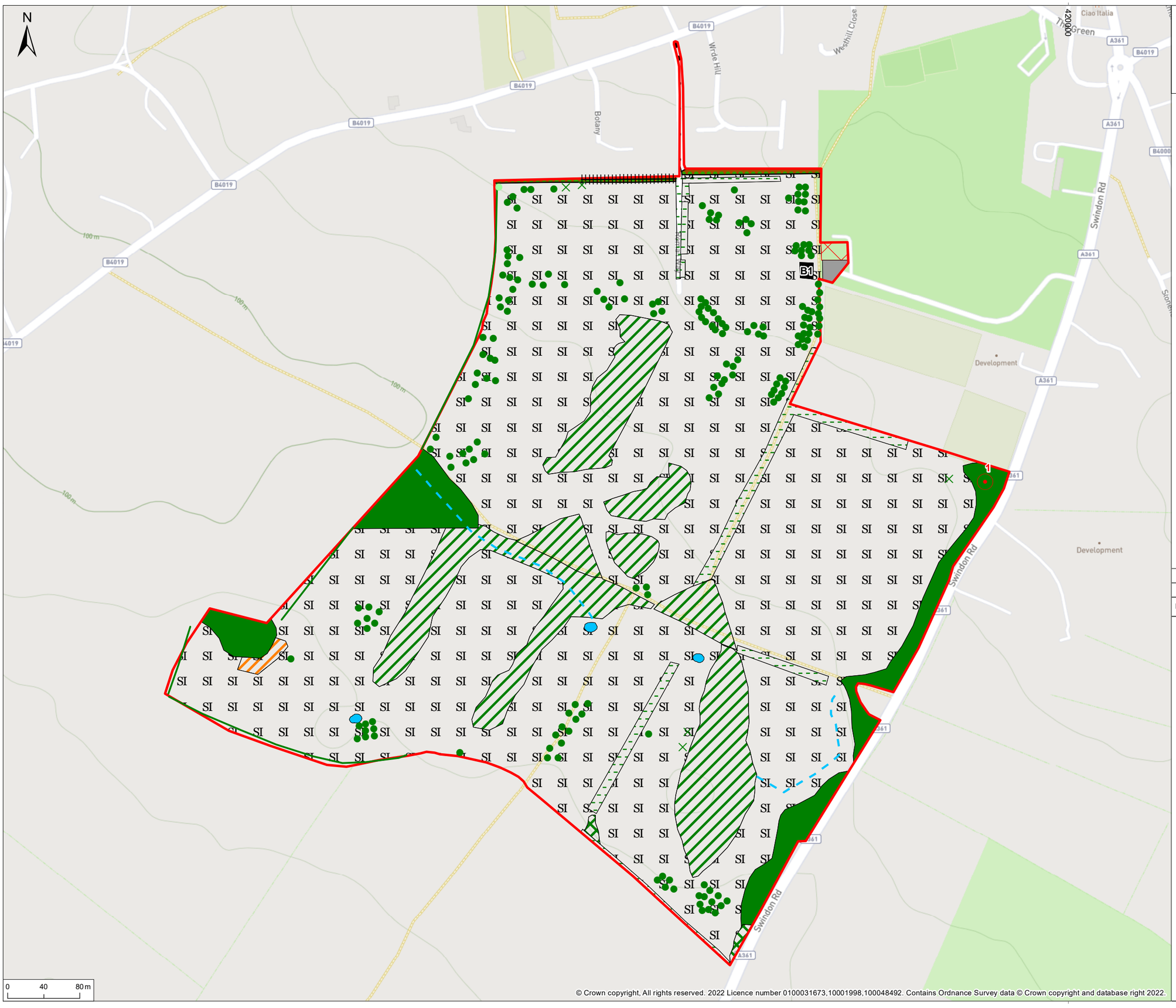
Buildings

3.3.17 There was one building on site, which did not appear to be currently in use although appeared relatively well maintained. It was a single storey, brick-built club house / sports storage style building. It has a slate tiled pitched roof.

Bare ground

3.3.18 There was one strip of hardstanding leading from the road into the site from the north. There was a small amount of ephemeral vegetation, largely oval leafed knotweed *Polygonum arenastrum*, down the centre of the track. The northern boundary of the site was separated from the rear gardens by a wooden fence.

Figure 3.1: Phase 1 Habitat Survey Map



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Legend

- Site boundary
- A1.1.1 - Broadleaved woodland - semi-natural
- A1.1.2 - Broadleaved woodland - plantation
- A2.1 - Scrub - dense/continuous
- B1.2 - Acid grassland - semi-
- B6 - Poor semi-improved grassland
- G1 - Standing water
- J2.2.2 - Defunct hedge - species-poor
- J3.6 - Buildings
- J4 - Bare ground
- J5 - Other habitat - Ornamental planting
- Not accessed land
- Road
- J2.1.2 - Intact hedge - species-poor
- J2.4 - Fence
- J2.6 - Dry ditch
- A2.2 - Scrub - scattered
- A3.1 - Broadleaved Parkland/scattered trees
- A3.2 - Coniferous Parkland/scattered trees
- Target note

Rev	Description	By	CB	Date

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Client: The CDS Group

Project: Highworth Golf Club

Title: Phase 1 Survey Results

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W:_GIS_OtherOfficeWork\ECO02718 Highworth Golf Club\Tech\Drawings\ECO02718-0001-01 Phase 1 Results.mxd

3.4 Ecological Scoping Survey

Flora

3.4.1 The plant species of interest on site included the grasses indicative of semi-improved acid grassland which were common to this habitat type.

3.4.2 There were no invasive plant species present during the walkover.

3.4.3 Dwarf spurge *Euphorbia exigua* was recorded within 40m of the site in 2017.

Invertebrates

3.4.4 During the walkover survey only a common assemblage of invertebrates was observed.

3.4.5 Stag beetle *Lucanus cervus* and rugged oil beetle *Meloe rugosus* have been recorded within 1.46km and 1.03km of the site, respectively.

Amphibians

3.4.6 There was habitat on site suitable for supporting great crested newts in both their aquatic (ponds) and terrestrial (tall grass and scrub) life stages, however no GCN have been recorded within 2km of the site within the last ten years.

3.4.7 There are several other semi-wet areas of site which provide suitable habitat for various other amphibian species. Common frog *Rana temporaria* has been recorded within 0.69 km of the site, the most recent record being in 2014. No other amphibians have been recorded within 2km of the site in the last ten years.

Reptiles

3.4.8 In some of the western hedgerows there were brash piles and rocks suitable for basking. There were also several areas of scattered scrub present on site which provide habitat for reptiles.

3.4.9 No reptiles have been recorded within 2km of the site in the last ten years.

Birds

3.4.10 The hedgerows, trees, long grass and hedgerows provide suitable habitat for nesting birds.

3.4.11 Several protected species of bird have been recorded within 2km of the site within the last ten years. The closest being Red Kite recorded 0.08 km away from the site in 2014. Many protected species have been recorded 0.14 km away from the site in 2020/2021, most notably Cetti's warbler *Cettia cetti*, cuckoo *Cuculus canorus*, yellowhammer *Emberiza citrinella* and reed bunting *Emberiza schoeniclus*.

Bats

Commuting and Foraging

3.4.12 The mosaic of trees, scrub and hedgerows provide suitable habitat for foraging and commuting bats throughout the site, and connectivity to the wider landscape.

3.4.13 Several species of bat have been recorded in 2020 and 2021 within 0.54 km of the site. These include Common pipistrelle *Pipistrellus pipistrelle*, Soprano pipistrelle *Pipistrellus pygmaeus*, noctule

Nyctalus noctula, serotine *Eptesicus serotinus*, western barbastelle *Barbastella barbastellus* and brown long-eared *Plecotus auritus* bats.

Roosting

3.4.14 Some of the large oak trees in the woodland could provide suitable habitat for roosting bats.

3.4.15 The building on site did not appear to have any external potential roosting features but no internal inspection was carried out to check for presence of a loft void.

3.4.16 Whilst undertaking a review of open access data provided by MAGIC Maps there were records for license applications for a site with roosting barbastelle, brown long eared and common pipistrelle bats in 2020 within approximately 0.5 km of the site.

Badgers

3.4.17 Woodland and longer areas of grass provide suitable habitat for badgers that may have setts within the local area.

3.4.18 Badgers have been recorded within 0.34 km of the site, the most recent record being in 2020.

Dormice

3.4.19 The hedgerows on site were mainly defunct in nature but had good connectivity to better quality hedgerows adjacent to the site.

3.4.20 No dormice have been recorded within 2km of the site within the last ten years.

Other mammals

3.4.21 The target note on Figure 3.1 indicates the presence of a relatively large rabbit warren in the eastern strip of immature woodland at the site boundary.

3.4.22 European water vole *Arvicola amphibius* has been recorded 0.85km from the site, brown hare *Lepus europaeus* have been recorded within 0.14 km of the site. Hedgehog *Erinaceus europaeus* have been recorded within the site itself in 2021.

4 EVALUATION AND POTENTIAL IMPACTS

4.1 Designated sites

4.1.1 There is one statutory designated site within 2 km of the site, Stanton Park Local Nature Reserve. Due to the nature of the proposed development and the intervening habitats, there is unlikely to be any significant adverse effect as a result of any works on site.

4.1.2 Three Local Wildlife Sites and one Local Geological Site are situated within 2km of the site. Due to the nature of this development, it is likely that none of these sites will be affected negatively.

4.2 Habitats

4.2.1 Although the hedgerows were comprised of native species, they were gappy and unmanaged meaning they do not meet the criteria to qualify as UK BAP Priority Habitat.

4.2.2 The ponds on site had low water levels, were heavily shaded and partially covered by vegetation. The water quality was also poor as it appeared they were used by dogs regularly. Therefore, none of the water bodies met the UK BAP Priority Habitat requirements.

4.2.3 The semi-improved acid grassland on site had a species assemblage common to the habitat type, with the indicator species occurring frequently, therefore it is unlikely to qualify as UK BAP Priority Habitat and no further botanical surveys are required.

4.2.4 The deciduous woodland present on site was used frequently by dog walkers and the understorey was species poor. All the trees were of a similar age and there was a relatively gappy canopy cover. Therefore, this would not qualify as UK BAP Priority Habitat.

4.2.5 Table 4.1 below summarises the habitat types within the site and outlines the potential impacts of the development proposals to each of these habitats.

Table 4.1: Summary of potential habitat impacts

JNCC Code	Habitat Type	Area / Length	% of site	Ecological Importance	Potential impact
B6	Poor semi-improved grassland	32.6954 ha	78.6	Low	Potential impact to reptiles and invertebrates.
B1.2	Semi-improved acid grassland	0.0879 ha	0.2	Moderate	Potential impact to reptiles and invertebrates.
A1.1.2	Plantation woodland	5.1966 ha	12.5	Moderate	Potential impact to foraging/commuting bats and nesting birds.
A1.1	Broadleaved woodland	2.1612 ha	5.2	High	Potential impact to badgers, roosting and foraging/commuting bats.
A3.1	Scattered broadleaved trees	N/A	N/A	Moderate	Potential impact to foraging/commuting bats and nesting birds.
A3.2	Scattered coniferous trees	N/A	N/A	Moderate	Potential impact to nesting birds.
J2.2.2	Species-poor defunct hedgerow	1.0002 ha	2.4	Low	Potential impact to nesting birds and reptiles.
J2.1.2	Species-poor intact hedgerow	800 m	N/A	Moderate	Potential impact to dormice, nesting birds and reptiles.

JNCC Code	Habitat Type	Area / Length	% of site	Ecological Importance	Potential impact
J1.4	Introduced shrub	0.1855 ha	0.4	Low	Potential impact to nesting birds.
A2.1	Scrub	0.0644 ha	0.2	Low	Potential impact to nesting birds and reptiles.
A2.2	Scattered scrub	N/A	N/A	Low	Potential impact to nesting birds.
J2.6	Ditch	451 m	N/A	Moderate	Potential impact to great crested newts and water vole/otter.
G1	Standing water	0.0321 ha	0.08	High	Potential impact to UK BAP Priority Habitat and great crested newts.
J4	Bare ground	0.0591 ha	0.1	Negligible	N/A
J3.6	Buildings	0.0263 ha	0.06	Low	Potential impact to roosting bats.

4.3 Species

Invertebrates

4.3.1 The invertebrates observed on site where of no higher importance than site level, therefore no further surveys are required.

Amphibians

4.3.2 Great created newts *Triturus cristatus* are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (and as amended), which affords the species protection under Section 9. The species is also listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2019.

4.3.3 Although no formal Habitat Suitability Indicator (HSI) assessment was carried out on the three ponds on site their presence in the habitat types surrounding indicate they are a suitable for supporting great crested news in their aquatic life stage. Initially to determine their presence or likely absence on site eDNA should be collected from the ponds. Following on from the results of this population surveys during the months of April-June may be required to inform the necessity of either payment to the District Level Licensing scheme or an application to Natural England for a European Protected Species Mitigation License.

4.3.4 Common frogs are protected under Annex 5 of the Habitat Species Directive, meaning that their exploitation and taking in the wild needs to be compatible with maintaining them in a favourable conservation status. In the Great Britain and Ireland, the Common Frog and its spawn is protected by law from trade and sale by the Wildlife & Countryside Act, 1981.

4.3.5 Since the common frog has been recorded within 2km of the site within the last ten years and since there is suitable habitat onsite, surveys precluding to GCN will note any evidence of common frogs and suitable mitigation be suggested should they be found.

Reptiles

4.3.6 Reptiles are protected from killing/injury under the Wildlife Countryside Act 1981 (as amended).

4.3.7 As the habitat on site is considered suitable for supporting a range of reptile species, further survey work is required. Reptile surveys should be carried out between March – October when they are active, and in appropriate weather conditions. 0.5 x 0.5 m sheets of roofing felt are used as reptile refugia and placed around the site in areas of interest. They would consequently be surveyed on seven separate site visits, with any species of reptiles recorded

Birds

4.3.8 Breeding birds are protected by the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to intentionally kill, injure or take the birds or their eggs, or to intentionally destroy or disturb a nest, when it is in use or being built.

4.3.9 As the site only had low potential to support any breeding or nesting birds, no further surveys are required however, the removal of any trees, hedgerows or scrub will avoid the bird nesting season (March to August inclusive). If this is not possible removal will occur under the supervision of a suitably qualified ecologist who will check for any active nests. If found to be present, a buffer zone, where no development activities will occur, will be cordoned off by the supervising ecologist until the young have fledged.

Bats

4.3.10 All species of bat present in the UK receive full protection under The Conservation of Habitats and Species (EU Exit) Regulations 2019, and the Wildlife and Countryside Act 1981 (as amended). Several bat species are also listed in Section 41 of the NERC Act 2006. These include the widespread species soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared bat *Plecotus auritus*, and the rarer woodland species such as Bechstein's *Myotis bechsteinii* and barbastelle *Barbastella barbastellus.*

Roosting

4.3.11 Although there were no obvious potential roosting features identified on the building on site it is recommended that the building is accessed internally, and a Preliminary Bat Roost Assessment (PBRA) is carried out by a suitably licensed ecologist. During this visit any trees that are scheduled to be removed (for example, to facilitate the sports pitches) should be subject to a Ground Level Tree Assessment (GLTA) to determine their potential for supporting roosting bats. Following on from this any feature that is determined to be of at least low potential should be subject to a number of emergence / re-entry surveys, proportionate to the level of suitability assigned.

Commuting / Foraging

4.3.12 Overall, the site had good quality habitat to support foraging and commuting bats and had good connectivity to the wider landscape. Alongside this, many bat species have been recorded within 0.14km of the site. Therefore, bat activity surveys are recommended to assess the species assemblage on site, and any areas of the site that should be highlighted for protection during the re-development.

Badgers

4.3.13 Badgers are protected under the Protection of Badgers Act 1992. This act is based on the need to protect badgers from baiting and deliberate harm or injury.

4.3.14 To assess their use (if any) of the site and its immediate surroundings (extending 30m from the site boundary) a walkover survey should be carried out by a suitably experienced ecologist. Results of this survey will be recorded in an ecology survey report and visualised using mapping to assess the areas of potential constraint on site.

Dormice

4.3.15 Hazel Dormouse *Muscardinus avellanarius* is fully protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2019.

4.3.16 The hedgerows on site provide suitable habitat for dormice and are well connected to the surrounding offsite habitats and wider landscape. Although these habitats are not considered likely to be impacted by the proposed development and no records have been found within 2km of the site within the last ten years, further survey work is recommended to establish a baseline of the protected species present on site.

4.3.17 Artificial dormouse tubes should be set out in all the hedgerows on site in early April and first checked in late May. Following this they should be checked monthly up until October (the end of their active season).

Other mammals

4.3.18 The presence of other mammals of conservation interest on site do not require further survey work however their protection throughout the re-development will be considered in the CEMP.

5 MITIGATION AND ENHANCEMENT

5.1 Habitats

5.1.1 Although none of the habitats qualify for specific protection under Section 41 of the NERC act, it is recommended that they are all retained and protected throughout any re-development. This protection could involve designated buffer zones from the habitat marked out by Heras fencing, details of which would be provided in a Construction and Environment Management Plan (CEMP). The production of a Landscape and Ecology Management Plan (LEMP) would ensure the long-term management of these habitats and outline ways in which they could be enhanced for their contribution to ecology.

5.2 Species

Amphibians

5.2.1 Notwithstanding the results of any GCN surveys the ponds should be retained and considered within the landscape designs. The CEMP will provide details on protective fencing that should be used throughout the development. Where the ponds currently appear to be regularly used by dogs, mitigation post development could include information boards to reduce any recreational pressure on the ponds and aquatic vegetation.

Reptiles

5.2.2 Dependent on the results of the recommended phase 2 surveys and the finalised plans of the proposed development, a translocation may be required if a reptile species is found to have a large on-site population, to a suitable receptor site. If only small numbers of reptiles are present a two-stage vegetation clearance method of any areas proposed for re-development would be recommended and detailed within the ecology survey report.

Birds

5.2.3 Any vegetation clearance to facilitate the proposed sports pitches should ideally take place outside of bird nesting season. If this is not possible a pre-check by a competent ecologist as described in Section 4 will confirm the presence/absence of nesting birds and should be conducted immediately prior to any demolition (which will then take place with 24 hours of the ecologist confirming the absence of nesting birds).

5.2.4 Although the site wasn't considered to support any significant breeding bird population, any suitable areas of habitat should be incorporated into open space, and the links to wider landscape should be kept intact.

Mammals

Bats

5.2.5 If any bat roosts (in both trees and the building) are confirmed during the recommended Phase 2 Surveys, then appropriate mitigation will be considered and outlined, prior to any works commencing.

5.2.6 Notwithstanding the results of any further surveys, the proposed development should aim to enhance the site for habitat for foraging / commuting bats post development. A suitable lighting strategy will be outlined which would include recommendations to avoid bright light (from the proposed sports pitches) on the sensitive habitats on site.

Badgers

5.2.7 If the recommended badger walkover survey finds a sett, including an outlier sett, then a 30m buffer would be imposed surrounding it and no works should take place in this zone. If only signs of badger are found on site, then recommendations would be made within the CEMP to protect badgers currently using the site from harm during construction works.

Dormice

5.2.8 If the dormouse surveys confirm presence of a population on site, then an application to Natural England for a European Protected Species License will have to be applied for before any works commence. Opportunities to enhance the site for dormice would be outlined in the ecology survey report.

Other mammals

5.2.9 The presence of other mammals of conservation interest on site do not require further survey work however their protection throughout the re-development will be considered in the CEMP.

5.3 Enhancement opportunities

5.3.1 An assessment of Biodiversity Net Gain (BNG), of the proposed development is recommended in line with local planning policy.

5.3.2 Bat and bird boxes are recommended within the final re-development design to enhance the site for breeding and mitigate for any loss of suitable habitat for these species. The boxes can be affixed to retained trees.

5.3.3 Such boxes could include the 1SP Schwegler Sparrow Terrace, Vivara Pro Seville woodstone nest box or swift bricks such as the Cambridge Swift Nest Box System and 2FN Schwegler bat box or 2FR Schwegler bat tube. An ecologist should be consulted to inform the number and exact locations of new bat and bird boxes.

5.3.4 In addition to the mitigation measures outlined above, opportunities for enhancements include:

- provision of native species in landscaping schemes including flower-, berry- and fruit-bearing species to enhance the habitat for birds, bats and invertebrates;
- provision of bee bricks to enhance the habitat for solitary bee species;
- provision of hibernacula's for herpetofauna and/or hedgehogs can be created by reusing materials on site; and
- night scented flowering plants, to encourage foraging bats to use the site, post-development.

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APPENDICES

Appendix A

Relevant Legislation

A.1 GREAT CRESTED NEWTS

Great Created Newts *Triturus cristatus* are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (and as amended), which affords the species protection under Section 9. The species is also listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2017. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.) a Great Crested Newt;
- possess a Great Crested Newt;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by Great Crested Newt for shelter or protection, or disturb any animal occupying such a structure or place; and sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

Great Crested Newts are also listed on the UKBAP as a Priority Species and are listed as a species of principal importance for biodiversity in England & Wales under Section 41 of the Natural Environment & Rural Communities Act (2006).

A.2 REPTILES

All common UK reptile species (Adder *Vipera berus*, Grass Snake *Natrix Helvetica*, Common Lizard *Zootoca vivipara* and Slow Worm *Anguis fragilis*) are protected through part of Section 9(1 and 5) of the Wildlife & Countryside Act 1981 (as amended). This prohibits:

- Intentional or reckless injuring or killing;
- Selling, offering or exposing for sale, or having in possession or transporting for the purpose of sale, any live or dead wild animal or any part of, or anything derived from, such an animal; or
- Publishing or causing to be published any advertisement likely to be understood as conveying buying or selling, or intending to buy or sell, any of those things.

A.3 BIRDS

All birds, their nests and eggs are afforded protection under the Wildlife and Countryside Act 1981, as updated by the Countryside and Rights of Way Act 2000. It is an offence to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; and
- intentionally take or destroy the egg of any wild bird.

Schedule 1 birds cannot be intentionally or recklessly disturbed when nesting and there are increased penalties for doing so. Licences can be issued to visit the nests of such birds for conservation, scientific or photographic purposes but not to allow disturbance during a development even in circumstances where that development is fully authorised by consents such as a valid planning permission.

A.4 BATS

All British bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981, as updated by the Countryside and Rights of Way Act 2000. All British bats are also included on Schedule 2 of The Conservation of Habitats and Species Regulations 2017 as European Protected Species. It is an offence to:

- intentionally or recklessly kill, injure or capture bats;
- deliberately or recklessly disturb bats (whether in a roost or not); and

- damage, destroy or obstruct access to bat roosts

A roost is defined as 'any structure or place which [a bat] uses for shelter or protection'. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present at the time of survey.

A licence will therefore be required by those who carry out any operation that would otherwise result in offences being committed.

The following bat species are listed as being of principal importance for the conservation of biodiversity in England, (commonly referred to as UKBAP Priority species): Barbastelle, Bechstein's, Noctule, Soprano Pipistrelle, Brown Long-eared, Greater Horseshoe, and Lesser Horseshoe.

A.5 BADGER

Badgers are protected under the Protection of Badgers Act 1992. This act is based on the need to protect badgers from baiting and deliberate harm or injury. The act makes it an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat a badger, or attempt to do so;
- Intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access routes.

A sett is defined as "any structure or place that displays signs indicating current use by a badger".

A.6 DORMOUSE

Hazel Dormouse *Muscardinus avellanarius* is fully protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017. The Regulations prohibit:

- Intentionally, recklessly or deliberately kill, injure or take a Dormouse;
- The deliberate disturbance of this species in such a way as to be significantly likely to affect:
  - Their ability of to survive, hibernate, migrate, breed, or rear or nurture their young; or;
  - The local distribution or abundance of Dormice.
- Damage or destruction of a breeding site or resting place (nest);
- The possession or transport of Dormice or any other part of.

Dormice are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion in Schedule 5. Under the Act, they are protected from:

- Intentional or reckless disturbance (at any level);
- Obstruction of access to any place of shelter, breeding or rest;
- Selling, bartering or exchange of these species, or parts of.

Offences can be deliberate, intentional or reckless and penalties for any of the above include fines of up to £5k and imprisonment of up to 6 months, per animal affected.

Dormice are also listed on Section 41 of the NERC Act 2006 as a Species of Principal Importance; national objectives & targets include the maintenance of the geographical range and viability of existing Dormice populations to ensure that it remains in favourable conservation status.

Appendix B

Site Photos

Plate 1: Hardstanding and ephermeral vegetation.

Plate 2: Western boundary hedgerow.

Plate 3: Poor semi-improved grassland.

Plate 4: Ditch.

Plate 5: Semi-improved acid grassland.

Plate 6: Pond.

Plate 7: Plantation woodland.

Plate 8: Central hedgerow.

Plate 9: Un-used buildings.

Plate 10: TN: rabbit warren.

Plate 11: Dense scrub.

Plate 12: Pond.