

Ecological Impact Assessment (non-EIA)



Burhill Golf Club

On behalf of Burhill Group Ltd

March 2024

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1 Executive Summary

<p>Report purpose</p>	<p>This report identifies the potential ecological impacts, mitigation, compensation and enhancement measures for a reservoir at Burhill Golf Club.</p>
<p>Date and methods of survey</p>	<p>A baseline ecological survey of the site was conducted in March 2024 which included:</p> <ul style="list-style-type: none"> An extended UKHab habitat survey; Habitat suitability index assessment for great crested newts; and Daytime bat walkover, and tree assessments for roosting bats.
<p>Key findings and potential impacts</p>	<p>The site, situated in Walton-on-Thames, Surrey, KT12 4BX is 2ha in extent and includes other neutral and modified grassland, blackthorn and bramble scrub, individual trees, wet woodland and a pond. There is one pond within the site and a further four within 250m of the site. Protected and priority species present or potentially present include:</p> <ul style="list-style-type: none"> Potential for great crested newts in all waterbodies within 250m and suitable terrestrial habitat on site, which may be killed/injured/disturbed during site clearance and/or construction; Moderate suitability foraging and commuting habitat for bats; Opportunities for nesting birds within the grassland, trees and scrub which may result in destruction of nests during site clearance; and Suitable habitat for common reptiles within the grassland and scrub; <div style="background-color: black; height: 20px; width: 100%;"></div> <p>Negligible opportunities for other protected or priority species.</p>
<p>Measures to avoid and/or reduce impacts and deliver biodiversity enhancements</p>	<p>A biodiversity net gain assessment has been produced by UES Ltd which demonstrates an increase in habitat value of 18.82% through habitat creation both on- and off-site.</p> <p>It is recommended that an update eDNA survey is conducted to confirm the continued absence of great crested newts from the site. If any ponds return a positive DNA result, a mitigation licence may be required.</p> <p>Mitigation measures during site clearance should be followed, including:</p> <ul style="list-style-type: none"> A Precautionary Method of Works involving phased clearance to safeguard reptiles; Sensitive use of artificial lighting during works; Vegetation clearance undertaken outside the nesting bird season (March – August, inclusive) or following a check for nests by an ecologist; and Standard mitigation measures to safeguard wild mammals including badger. <p>Ecological enhancements will be incorporated including two bird and two bat boxes, and hibernacula for amphibians and reptiles.</p>

2 Introduction

2.1 Background

- 2.1.1 Ecology by Design was commissioned by Burhill Group Ltd to undertake a Preliminary Ecological Appraisal (PEA) of land at Burhill Golf Club, Burhill, Walton-on-Thames, Surrey, KT12 4BX (central grid reference: TQ 11009 62259). This included a Preliminary Ecological Appraisal (PEA), Daytime Bat Walkover (DBW), Ground Level Tree Assessment (GLTA), Habitat Suitability Index Assessment (HSI) of ponds and badger walkover survey.
- 2.1.2 A PEA was previously undertaken by Ecology by Design in January 2020, which identified suitable habitat for great crested newts, reptiles and nesting birds.
- 2.1.3 Environmental DNA (eDNA) surveys for great crested newts were undertaken by United Environmental Services Ltd (UES) in 2021 (United Environmental Services Ltd, 2021), which returned negative results for waterbodies within 250m of the site boundary (P1, P3, P5, P8 and D1).

2.2 Site Description

- 2.2.1 The 2-hectare (ha) site comprises other neutral grassland with tall herbs, bramble scrub, blackthorn scrub, bracken (*Pteridium aquilinum*), wet woodland, individual trees and a pond. This is situated within Burhill Golf Club, comprising fairways, tree lines, ponds and scattered scrub.
- 2.2.2 In the wider landscape, Burhill Golf Club extends to the north, south and west, with a woodland to the east within the grounds of a school. The River Mole is located 450m north, and the A3 is located 600m to the south-east.

2.3 Proposed Works

- 2.3.1 The proposals for the site include construction of an irrigation reservoir which will service the golf course.

2.4 Aims of Report

- 2.4.1 This report is an Ecological Impact Assessment which presents the approach and findings of the assessment of the potential ecological impacts of the proposed development works in accordance with industry standard guidance (CIEEM, 2019; BSI Standards Limited, 2013). It has been produced following a Preliminary Ecological Appraisal and further surveys for great crested newts. The development does not require an Environmental Impact Assessment (EIA), therefore EcIA has been included for clarity on the title page.

2.4.2 This report will be submitted to Elmbridge Borough Council to inform the planning application.

2.5 Personnel

2.5.1 This project is led by Senior Ecologist Emily Power BSc (Hons) MSc ACIEEM who has 10 years' experience in ecological consultancy, and Assistant Ecologist Jess Botha BSc (Hons) MSc, who has one years' experience in ecological consultancy. Both are experienced in conducting habitat and protected species assessments. The preliminary ecological appraisal survey was completed by Emily Power, who holds a Natural England Level 2 class licence for surveying bats (Licence number 2017-32544-CLS-CLS) and a Natural England Level 1 class licence for surveying great crested newts (2017-30086-CLS-CLS). The report was written by Emily Power and Jess Botha.

2.5.2 Project supervision and review of the report was provided by Associate Ecologist Laura Grant, BSc (Hons), MCIEEM, who has been an ecological consultant for 15 years.

3 Methods

3.1 Desk Study

3.1.1 A desk study was carried out to identify:

Internationally protected sites within the potential zone of influence of the site (minimum of 7km);

Nationally protected sites within 5km of the site; and

Non-statutory designated sites and records of protected or priority species within 2km of the site (central OS national grid reference TQ 11009 62259).

3.1.2 A 2km search radius for species and non-statutory designated sites is justified due to the small size of the site and small-scale development works being undertaken. It is thought highly unlikely that species or non-statutory sites outside this search zone would be affected by the project. A larger search radius is applied for internationally and nationally designated sites as these sites are protected to a higher level and can often be more sensitive to disturbance. These search distances are also based on industry standard guidance.

3.1.3 Sources consulted include:

Surrey Biological Information Centre (SBIC) (returned 15th March 2024);

MAGIC (magic.defra.gov.uk) (accessed 19th March 2024); and

Local Planning Policy documents and the local planning portal.

3.2 Preliminary Ecological Appraisal

3.2.1 A Preliminary Ecological Appraisal (PEA) was conducted on 12th March 2024 by Ecology by Design Senior Ecologist Emily Power BSc (Hons) MSc ACIEEM using standard techniques and methodologies (CIEEM, 2017) and the nomenclature of Stace (2019).

3.2.2 The PEA includes a survey of the habitats utilising the standard UK Habitat Classification system (UKHab Ltd, 2023). Weather conditions during the survey were mild (12°C), calm (wind 1 on Beaufort scale¹), overcast (cloud 8/8²) and with rain at the beginning of the survey. A UK Habitat Classification map is included in Appendix 2.

3.2.3 Opportunities for or evidence of protected and priority species were also identified. Where potential impacts on features of ecological interest are identified, the PEA is extended to

¹ The Beaufort scale is an empirical measure from 0-12 which relates wind speed to observed conditions. 0- Calm, 1- Light air, 2- Light breeze, 3- Gentle breeze, 4- Moderate breeze, 5- Fresh breeze etc.

² Cloud cover is measured using the system called oktas. The visible sky is divided into eight and cloud presence is determined within each section. A value of one to eight is then assigned (1 okta being cloudless to 8 oktas being total cloud cover).

include an assessment of impact. Any further surveys required are outlined and recommendations are made for appropriate avoidance, mitigation, compensation and enhancement measures.

3.3 Bats

Daytime Bat Walkover (DBW) Survey

- 3.3.1 A daytime bat walkover (DBW) survey was conducted by Emily Power (Natural England Level 2 class licence 2017-32544-CLS-CLS) and Assistant Ecologist Jess Botha whilst conducting the habitat survey.
- 3.3.2 During the DBW the surveyors noted any habitats suitable for roosting, foraging or commuting bats within or adjacent to the site. This includes recording structures, habitat features and trees which could be suitable for bats.

Table 3.1: Categorisation of Potential Suitability of Sites for Bats (Collins, 2023)

Suitability	Description of Potential Flightpaths and Foraging Habitats
None	No suitable features for flightpaths and foraging.
Negligible	No obvious flightpath or foraging features but cannot be discounted.
Low	Habitats with limited connectivity suitable for use by low numbers of bats.
Moderate	High habitat connectivity including flightpath or foraging habitats features.
High	Well-connected habitats high quality habitats for foraging which is likely to be in regular use.

Ground Level Tree Assessment (GLTA)

- 3.3.3 A ground level tree assessment was conducted by Emily Power and Jess Botha whilst conducting the habitat survey.
- 3.3.4 The surveyor used a high-power torch (LEDLenser Lamp) and 10x42mm binoculars to identify features of interest. Where possible, each aspect of the tree was inspected to identify features with potential to support roosting bats such as woodpecker holes, rot holes, splits, cracks, flaking bark and/or ivy cover. Where any evidence of use by bats such as droppings, staining or scratches around such features were present this was noted.
- 3.3.5 Collins (2023) categorises the suitability of trees for roosting bats as follows:
 - None = Either no Potential Roosting Features (PRFs) in the tree or highly unlikely to be any;
 - FAR = Further assessment required to establish if PRFs are present in the tree; or

PRF = A tree with at least one PRF.

3.3.6 Where possible, each PRF was assessed using the following criteria;

PRF-I = PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats; or

PRF-M = PRF is suitable for multiple bats and may therefore be used by a maternity colony.

3.4 Great Crested Newt Scoping

Habitat Suitability Index Assessment of Ponds

3.4.1 A Habitat Suitability Index (HSI) survey was undertaken by Emily Power (Natural England class licence number 2017-30086-CLS-CLS) and Jess Botha during the habitat survey, to assess suitability for great crested newts (*Triturus cristatus*). Natural England recommends calculation of HSI scores for ponds as a tool to assess habitat quality in a repeatable, objective manner (Natural England, 2020). In particular, the HSI allows individual factors that influence newt presence to be easily identified. Natural England suggests that ecological consultants apply the adapted HSI methods used by the National Amphibian and Reptile Recording Scheme (Herpetological Conservation Trust, 2008) in order to determine the HSI value of each waterbody. This adapted method simplifies the way in which terrestrial habitat is evaluated.

3.4.2 The suitability index is calculated by allocating scores to features associated with each waterbody; these include features such as size, quality of surrounding habitat and presence of fish. These scores are then used to calculate the overall HSI for each waterbody as a number between 0 and 1, with 0 being the least suitable and 1 being the most suitable. The HSI score allows each waterbody to be placed in one of five pre-defined categories defining its suitability for great crested newts as follows:

<0.5	=	poor
0.5 – 0.59	=	below average
0.6 – 0.69	=	average
0.7 – 0.79	=	good
>0.8	=	excellent

3.5 Badgers

3.5.1 A badger (*Meles meles*) survey was conducted by Emily Power and Jess Botha whilst conducting the habitat survey. The badger survey involved walking across the site searching for evidence of badgers and badger activity in accordance with standard guidance (Gov.uk, 2015b). Any badger setts found were defined as main / annexe / subsidiary / outlier sett as adapted from

Neal and Cheeseman (1996) and Harris et al. (1989). In addition to badger setts other evidence of badgers was also recorded. This included:

- Live or dead badgers;
- Foraging scrapes (distinctive excavations made by badgers when searching for food);
- Badger dung;
- Dung pits (a badger will often deposit its dung within a small excavated pit);
- Latrines (a collection of dung pits) (Roper, 2010);
- Badger guard hairs;
- Mammal paths; and
- Badger tracks.

3.6 Limitations/Constraints

- 3.6.1 The wildlife and wider ecological interest of a site can change. The report presented here is a statement of the findings of surveys carried out in March 2024. For the purpose of this report the results of site visits are discussed in the present tense. Any appreciable delay in making reference to this report or changes to the proposed development boundary may necessitate a re-survey.
- 3.6.2 The species information gained from local record centres is largely derived from data submitted from members of the public and volunteers. For this reason, it should be understood that the desk study may not provide an exhaustive list of all protected species that could occur in the local area.
- 3.6.3 Weather conditions were suitable to conduct the surveys, as the rain did not affect visibility or detectability of habitat characteristics in order to classify the habitats.

4 Results and Interpretation

4.1 Designated Sites

4.1.1 The desk study identified two internationally designated sites for nature conservation within 7km of the site, five nationally designated sites for nature conservation within 5km and four non-statutory sites within 2km of the site.

Table 4.1: Internationally classified / designated sites within 7km of the site

Name & international reference	Distance & direction from site	Size and interest
South West London Waterbodies (SPA ³ UK9012171 and Ramsar UK11065)	5.5km N	830.26ha; This site is designated both a Ramsar and a SPA. This site comprises a number of reservoirs and former gravel pits which support internationally important populations of gadwall (<i>Anas strepera</i>) and shoveler (<i>Anas clypeata</i>).
Thames Basin Heaths (SPA UK9012141)	4km SW	8,309.5ha; This site forms part of a network of heathland sites extending over Hampshire, Surrey and Berkshire. This site is designated with SPA status as it supports internationally populations of the UK's rarest breeding birds, such as the Dartford warbler (<i>Sylvia undata</i>), nightjar (<i>Caprimulgus europaeus</i>), and woodlark (<i>Lullula arborea</i>).

Table 4.2: Nationally designated sites within 5km and non-statutory sites of potential relevance within 2km of the site

Name & reference	Distance & direction from site	Size and interest
Esher Commons (1000151) SSSI and LNR	0.9km E	360ha notified for the presence of over 2,000 species of insect, some rare or scarce, on the site which comprises common grazing land, heathland, woodland and ponds.
Ockley and Wisley Commons (1000162) SSSI and LNR	3.7km SW	267ha notified for having a large tract of heathland containing heath, bog, open water, secondary woodland and scrub. These habitats support a rich community of heathland plants and animals.
West End Common LNR	1.3km NE	70ha common with wetter areas, which have starfruit (<i>Damasonium alisma</i>), woodland with ancient oak (<i>Quercus robur</i>) and beech trees (<i>Fagus sylvatica</i>) and grassland.
Old Common LNR	1.2km S	16ha, no other information available.

³ Special Protection Areas (SPAs) are strictly protected sites classified in accordance with Article 4 of the EC Birds Directive (79/409/EEC), which came into force in April 1979. They are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species.

Claygate Common LNR	4.9km E	14ha woodland with oak, beech and hornbeam (<i>Carpinus betulus</i>).
Fairmile Common North of A3 (EL005) (SNCI)	1.3km SE	3ha of land designated for its position within the middle of Esher Common SSSI and for the potential of the site to improve with further management.
Old Common, Cobham (EL017) (SNCI)	1.3km N	9.1ha of interest for having acid grassland, secondary wet and dry woodland, neutral grassland and a pond. Forms part of an important habitat mosaic.
Whiteley Village (EL013) (SNCI)	1.6km W	0.3ha of interest for the presence of species-rich unimproved grassland which is a declining habitat.
Field West of Old Common (EL019) (SNCI)	1.6km NE	2.2ha of interest for rough grassland which is attractive to common species of reptile.

* Where;

SPA = Special Protection Area

SSSI = Site of Special Scientific Interest

LNR = Local Nature Reserve

SNCI = Site of Nature Conservation Importance

- 4.1.2 Only those sites of potential relevance are detailed above, with the remainder scoped out of further assessment due to their size, location, habitat types, lack of connectivity and/or absence of shared features of interest, therefore no potential impacts as a result of the proposals are anticipated. The LPA and Local Records Centre has access to the full list of sites. A full list can be provided upon request.

4.2 Habitats

- 4.2.1 At the time of the survey, March 2024, the following habitats were recorded on site. They are described in Table 4.2 below, Photographs are included in Appendix 1 and a habitat map is included in Figure 1, Appendix 2.

Table 4.2: Habitat types identified during the UKHab survey

Habitat type & UKHab code	Parcel or Feature Reference and Description
Other neutral grassland with tall herbs (g3c)	<p>The majority of the site comprises unmanaged other neutral grassland with tall herbs (PR1). Species present include dominant false oat-grass (<i>Arrhenatherum elatius</i>), Yorkshire-fog (<i>Holcus lanatus</i>), cock's-foot (<i>Dactylis glomerata</i>), soft rush (<i>Juncus effusus</i>), common ragwort (<i>Senecio vulgaris</i>), spear thistle (<i>Cirsium vulgare</i>), creeping thistle (<i>Cirsium arvense</i>), tufted vetch (<i>Vicia cracca</i>), curled dock (<i>Rumex crispus</i>), willowherb (<i>Epilobium</i> sp.), creeping buttercup (<i>Ranunculus repens</i>), cleavers (<i>Galium aparine</i>) and common nettle (<i>Urtica dioica</i>).</p> <p>One potential badger latrine was identified in the east of the site in an area of rough grass on top of a high point in the terrain.</p>

	This habitat has potential to support great crested newt, common reptiles, ground-nesting birds, and priority species including hedgehog and common toad.
Modified grassland (g4)	<p>There is an area of modified grassland (PR2) which is in the location of the access route. This comprises closely-mown grasses managed as part of the golf course, including perennial rye-grass (<i>Lolium perenne</i>) and red fescue (<i>Festuca rubra</i>). The grassland is worn with many areas of bare ground as a result of being used by vehicles.</p> <p>This habitat has negligible potential for protected or priority species.</p>
Blackthorn scrub (h3a)	<p>There is one area of blackthorn scrub (PR3), comprising blackthorn (<i>Prunus spinosa</i>) and bramble.</p> <p>The scrub is suitable for great crested newts, common reptiles, nesting birds and badger.</p>
Bramble scrub (h3d)	<p>There are two areas of bramble scrub (PR4 and PR5) consisting predominantly of bramble (<i>Rubus fruticosus</i> agg.), with some dog rose (<i>Rosa canina</i>). There are log piles and brash piles within the bramble, and mammal paths leading internally.</p> <p>The scrub is suitable for great crested newts, common reptiles, nesting birds and badger.</p>
Wet woodland (w1d) (priority habitat)	<p>There is a single area of wet woodland (PR6) in the north of the site around Pond 2, which comprises grey willow (<i>Salix cinerea</i>), alder (<i>Alnus glutinosa</i>) and hazel (<i>Corylus avellana</i>). There is no shrub layer, and the ground flora comprises grasses contiguous with PR1.</p> <p>The woodland is suitable to support great crested newt and nesting birds.</p>
Individual trees (u(11))	<p>There are four trees on site (T1 – T4). T1 and T2 are mature, medium-sized oak (<i>Quercus robur</i>) trees. T3 is a small oak and T4 is a small cherry (<i>Prunus</i> sp.). None of these trees have suitable features for roosting bats. In addition, there are multiple self-seeded oak saplings around the site.</p> <p>The trees are suitable to support nesting birds.</p>
Pond (r1g(42))	<p>One pond is present within the red line boundary (P2), located within the wet woodland.</p> <p>This is suitable to support great crested newts.</p>

Adjacent habitats

- 4.2.2 To the south of the site is a mature tree line comprising predominantly oak, with a wet ditch at the base (D1), flowing westward and northwards towards an outflow into the River Mole.
- 4.2.3 To the east of the site is a broadleaved woodland which forms part of the adjacent school grounds. Rhododendron has grown onto the golf course site from this woodland. There is a wet ditch (D2) present which flows northwards into the River Mole.
- 4.2.4 There are a further eight ponds within 500m of the site.

Conclusion

- 4.2.5 The habitats on site are low grade and widespread and are therefore of negligible importance within a geographic context as per the definitions in Appendix 4.

4.3 Species

Bats

Desk Study

- 4.3.1 Seventeen records of at least five bat species have been recorded within 2km of the site including common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared (*Plecotus auritus*), noctule (*Nyctalus noctula*) and myotis bat (*Myotis* sp.). The closest of these records was of a noctule, a common pipistrelle and a brown long-eared bat 1.3km south of the site in 2017.
- 4.3.2 18 European Protected Species Licences (EPSL) for bats have been returned within 2km, with the closest for the destruction of a common pipistrelle and soprano pipistrelle resting place in 2018, 0.48km east of the site.

Daytime Bat Walkover

- 4.3.3 Habitats with suitability for foraging or commuting bats within or adjacent to the site include:
- The other neutral grassland and scrub within the site itself;
 - The woodland edge beyond the eastern boundary; and
 - The mature tree line beyond the southern boundary.

- 4.3.4 There are no opportunities for roosting bats within the site.

- 4.3.5 Overall, the site is identified as being of moderate suitability for foraging and commuting bats.

Ground Level Tree Assessment (GLTA)

- 4.3.6 All of the trees on site were assessed for potential roosting features for bats. None were observed within the trees within the site boundary.

Great Crested Newts

Desk study

- 4.3.7 No records for great crested newt (GCN) were returned within 2km of the site.
- 4.3.8 No European Protect Species Licences (EPSL) were returned for GCN within 2km of the site. One positive survey licence return is present 2.1km north-east of the site.

HSI survey

4.3.9 The HSI scores resulting from this assessment are shown in Table 4.3. These results indicate that the ponds within the golf course have varying suitability between Below Average to Excellent. A full breakdown of the component scores is given in Appendix 3.

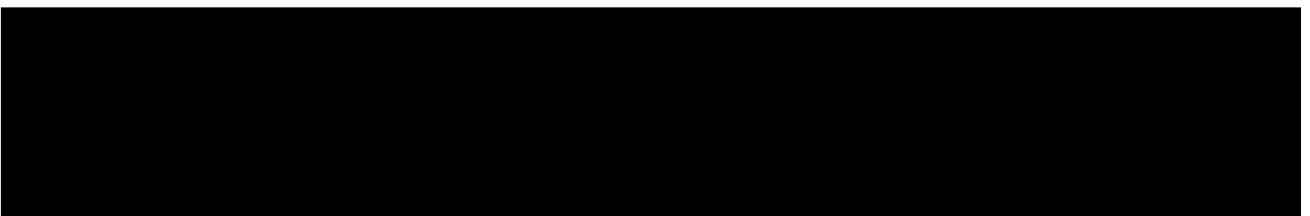
4.3.10 Where the scores deviate from the 2020 results, this is primarily to do with changes to terrestrial habitat suitability, percentage shade and macrophyte cover, and evidence of wildfowl. Pond 9 has been discounted from the assessment since it is located on the other side of the River Mole, which is considered to be a significant dispersal barrier to great crested newts.

Table 4.3: Habitat Suitability Index scores and suitability class

Pond ID	HSI Index	Suitability Class
Pond 1	0.87	Excellent
Pond 2	0.82	Excellent
Pond 3	0.78	Good
Pond 4	0.50	Below Average
Pond 5	0.52	Below Average
Pond 6	0.51	Below Average
Pond 7	0.75	Good
Pond 8	0.76	Good
Pond 9	Discounted	
Ditch 1	0.60	Average
Ditch 2	0.64	Average
Ditch 3	0.73	Good

Badgers

4.3.11 No records of badger were returned by the desk study.



4.3.13 Evidence of other mammals were identified. Three roe deer (*Capreolus capreolus*) were observed on site during the habitat survey, and evidence of rabbit (*Oryctolagus cuniculus*) included droppings and snuffle holes.

Other Protected, Priority or Invasive Species

- 4.3.14 The results of the preliminary ecological appraisal and desk study are presented together in Table 4.4 below. The species / species groups present or potentially present are presented in order of relevance to this development. Relevant legislation and policy is referred to as appropriate and further details are provided in Section 6.
- 4.3.15 There are no watercourses within the Zone of Influence of the site and therefore species such as white clawed-crayfish (*Austropotamobius pallipes*), water vole (*Arvicola amphibius*) and otter (*Lutra lutra*) are unlikely to be impacted by the works and have been scoped out of further assessment.

Table 4.4: Presence of or potential for protected / notable / invasive species within the site and local area

Species	Protection or Status *	Presence/potential at the site
Birds	W&CA 1981 Sch1 / Sch5	Seven records of seven bird species were returned by the desk study, including sparrowhawk (<i>Accipiter nisus</i>) and nightjar (<i>Caprimulgus europaea</i>). There are opportunities for foraging and nesting by common bird species within the site. Nesting opportunities include the grassland, trees and shrubs.
Dormouse (<i>Muscardinus avellanarius</i>)	EPS. SPI. W&CA 1981 Sch5	No records of the species were returned by the desk study. The pockets of scrub within the site are poorly connected to other features suitable for dormice. Therefore, it is considered highly unlikely that dormice are present on site.
Reptiles	W&CA 1981 Sch5	11 reptile records comprising adder (<i>Vipera berus</i>), grass snake (<i>Natrix helvetica</i>), common lizard (<i>Zootoca vivipara</i>), and slow-worm (<i>Anguis fragilis</i>) were returned by the desk study. The grassland and pockets of scrub are suitable for common species of reptile, and there are log piles within the scrub which are suitable for sheltering.
Hedgehog (<i>Erinaceus europaeus</i>)	SPI	Four records of hedgehog were returned by the desk study. The grassland, scrub and woodland habitats are suitable for foraging and sheltering hedgehog.
Brown Hare (<i>Lepus europaeus</i>)	SPI	No records of the species were returned by the desk study. Brown hare favour open arable habitats, and therefore the unmanaged nature of the grassland is of low suitability for the species.
Common toad (<i>Bufo bufo</i>)	SPI	Two records of the species were returned by the desk study. There are multiple potential breeding ponds for common toad within the vicinity of the site and the scrub and rough grassland may be used for foraging and sheltering.

Invertebrates	SPIs.	<p>Six records of one protected invertebrate species, stag beetle (<i>Lucanus cervus</i>) were returned by the desk study.</p> <p>There are opportunities for common invertebrates on the site, however the unmanaged nature of the grassland and scrub indicate that the site is less suited to rarer and protected species.</p>
Protected plants	W&CA 1981 Sch8	<p>Twenty records of two protected plant species were returned by the desk study, bluebell (<i>Hyacinthoides non-scripta</i>) and cut-grass (<i>Leersia oryzoides</i>).</p> <p>The common and widespread habitats present within the site are largely unsuitable for protected plant species and therefore it is unlikely that they will be present.</p>
Invasive species	W&CA 1981 Sch9	<p>74 records of 13 invasive plant species were returned by the desk study, including Japanese knotweed (<i>Fallopia japonica</i>), Indian balsam (<i>Impatiens glandulifera</i>) and giant hogweed (<i>Heracleum mantegazzianum</i>).</p> <p>25 records of three invasive faunal species were returned by the desk study, including eastern grey squirrel (<i>Sciurus carolinensis</i>), marsh frog (<i>Pelophylax ridibundus</i>) and ring-necked parakeet (<i>Psittacula krameri</i>).</p> <p>No invasive plant or animal species were identified on site during the PEA, however non-native rhododendron (<i>Rhododendron ponticum</i>) is present along the woodland boundary to the east of the site.</p>

* Where:

EPS = European Protected Species under the provisions of the Conservation of Habitats and Species Regulations 2017 (as amended)

SPI = Species of Principal Importance under Section 41 of the NERC Act 2006

W&CA 1981 = Wildlife and Countryside Act 1981 (as amended)

Sch1 = Schedule 1 Birds which are Protected by Special Penalties (W&CA 1981)

Sch5 = Schedule 5 Animals which are Protected (W&CA 1981)

Sch8 = Schedule 8 Plants which are Protected (W&CA 1981)

Sch9 = Schedule 9 Animals and Plants to which Section 14 Applies (W&CA 1981)

Conclusion

- 4.3.16 The site is of moderate suitability for foraging and commuting bats, may support common species of reptile and offers suitable foraging habitat for badger and nesting habitat for common bird species. As these are common and widespread, the site is considered to be of negligible importance within a geographic context as per the definitions in Appendix 5.

5 Potential Impacts and Recommendations

5.1 Introduction

5.1.1 This section presents the potential impacts and subsequent recommendations for the proposed development at the site.

Adoption of the Mitigation Hierarchy

5.1.2 In accordance with the National Planning Policy Framework (NPPF) (see Section 6) and British Standard 42020:2013 ‘Code of Practice for Planning and Development’ (BSI Standards Limited, 2013), the ‘Mitigation Hierarchy’ has been adopted at the site with regards to the potential ecological impacts of the proposals. The mitigation hierarchy outlines a stepwise process as follows:

Avoidance – as a first option, adverse impacts should be avoided through good design, such as retaining and safeguarding important ecological features wherever practicable;

Mitigation – where unavoidable, adverse impacts should be reduced as much as possible, such as reducing land-take of important habitats;

Compensation – where residual effects remain, compensation should be secured to offset adverse impacts, such as through compensatory habitats creation; and

Enhancement – opportunities for net gains in biodiversity should be explored and included wherever appropriate.

5.2 Designated Sites

5.2.1 Natural England defines Impact Risk Zones (IRZs) around SSSI’s, SACs, SPAs and Ramsar sites and categories of development for local authorities to determine if they need to consult Natural England in regard to potential impacts upon them.

5.2.2 The site lies within the IRZs for Esher Commons SSSI (0.9km east) and Oakham and Wisley Commons SSSI (3.7km south-west). Consultation with Natural England is not required since the proposals are for construction of a rain-fed reservoir with no water discharges to the ground or surface water. The water which would naturally fall on site would be discharged into the River Mole via ditches, and the water at Esher Commons SSSI would also be discharged into the River Mole, and therefore changes to the hydrology on site are not considered likely to impact the hydrological conditions of the SSSI; as such, the potential for impacts on nearby SACs and SSSIs are considered unlikely.

5.2.3 Given the nature and scale of the proposals, it is considered that all other designated sites within the surrounding area are sufficiently removed and separated from the site that the proposals will result in no negative impact on designated sites.

5.3 Habitats

Potential Impacts

5.3.1 The proposals will involve the loss of other neutral grassland, bramble and blackthorn scrub, individual trees and wet woodland (priority habitat). The landscaping proposals include the reservoir itself, planting of native woodland, scrub and trees, and wildflower grassland creation within the development site and within two off-set sites present within the golf course. Details are given in the Landscape Proposals Plan produced by MD Landscape (drawing no. 305/L/100, dated 05/01/2024).

5.4 Species

Potential Impacts

5.4.1 Species/groups and other ecological features for which potential impacts are not considered likely to occur as a result of the proposals are outlined alongside justification in Table 4.4 above; these are excluded from further assessment.

Great Crested Newts

5.4.2 Great crested newts were considered likely absent following negative eDNA results for all waterbodies within 250m of the site undertaken in 2021. However, these results are now out of date, and therefore update eDNA surveys should be conducted in order to verify the population status of great crested newts at the site. If any ponds return a positive result, further surveys may be required, and/or a mitigation licence may be necessary due to the presence of suitable terrestrial habitat on site.

Reptiles

5.4.3 The site has potential to support common reptiles including slow-worm, common lizard and grass snake within the areas of rough grassland and bramble scrub. There is suitable retained habitat for reptiles immediately adjacent to the site to the north, east and south, which links to other suitable habitat in the wider golf course. A Precautionary Method of Works should therefore be adopted during site clearance to safeguard reptiles, which will implement the following methodology:

Site clearance works will be undertaken outside the reptile hibernation season (considered to be November – March, inclusive);

Grassland and scrub will be cut to a height of 300mm, left overnight, and subsequently cut to the ground under ecological supervision in the direction of retained habitats to the north, east and south; and

Log and brash piles will be dismantled by hand under ecological supervision.

Nesting birds

- 5.4.4 All wild birds' nests are protected whilst in use. If any active wild birds' nests are found prior to the vegetation clearance, or building demolition, then these must be left alone until they cease to be in use. Ideally, works to suitable nesting habitat/features should be scheduled to avoid the bird nesting season (March to August inclusive). Should such works take place during March-August inclusive, they must be immediately preceded by a check for any active nests by a suitably qualified ecologist. Any active nests identified during works (regardless of time of year) would need to be protected and left with a suitable buffer (to be defined by the ecologist) until the nest is no longer active.

Bats

- 5.4.5 Site clearance is likely to have a temporary negative impact on bat foraging behaviour, however the tree line to the south and the woodland boundary to the east will provide continued linear corridors for commuting. Once the reservoir is complete, this will provide a suitable foraging resource for bats, and no artificial lighting is proposed. Therefore, impacts are limited to the construction phase.
- 5.4.6 Lighting during construction should be limited wherever possible, with construction works to be undertaken within daylight hours. Any supplementary lighting should face in towards the site, away from the boundary features, on a downward tilt, and must be switched off when not in use.

the creation of temporary brush or log piles within the site should be avoided as these may be adopted by wild mammals for shelter;

any newly discovered mammal entrances within the site should be safeguarded and left in-situ until reported to a suitably qualified ecologist, who will advise on appropriate steps if needed for works to resume;

pipes should be capped off overnight to prevent animals entering and becoming trapped;

trenches or pits left overnight will be provided with a means of escape for wild mammals should they enter such as a collapsed edge or a flat roughened stable plank (no steeper than 45°) acting as a ramp to the surface;

all trenches and pits will be inspected each morning to ensure no wild mammals have become trapped overnight. Should a badger become trapped in a trench it will likely dig itself into the side of the trench. Should a trapped badger be encountered, a suitably qualified ecologist will be contacted immediately for further advice;

the prolonged storage of uncontained and uncovered topsoil in piles on site will be carefully considered and possibly fenced-off if needed as these are readily adopted by burrowing animals such as foxes (*Vulpes vulpes*) for dens;

chemicals will be contained in such a way that wild animals cannot access or knock them over;

fires should be avoided altogether within the site; and

loose litter and food will not be left in accessible areas of the site overnight.

5.5 Ecological Enhancements

Bats

- 5.5.1 It is recommended that inclusion of two 2F Schwegler general purpose bat boxes is secured as part of the proposed development.
- 5.5.2 The boxes will be installed on suitable mature trees within the land ownership boundary. Boxes must be positioned at a height of 3 - 5m in a sheltered area with a clear flight path to the entrance, on southern or western aspects. Where erected on trees, boxes should be affixed using aluminium nails or screws only, the use of copper, zinc or steel affixers in particular must be avoided.
- 5.5.3 A suitably qualified ecologist must direct and/or approve the installation of bird boxes to ensure their suitable placement; this can be achieved by:
- signing off on landscaping proposals showing locations of boxes;
 - providing detailed instruction and signing off on evidence of installation such as photos; or

attending site to direct installation via affixture to trees.

Nesting Birds

- 5.5.4 It is recommended that inclusion of two 1B Schwegler bird boxes is secured as part of the proposed development. Specified boxes should target local notable species for which presence was confirmed on site or records of which were returned within the local area.
- 5.5.5 The boxes will be installed on suitable mature trees within the land ownership boundary. Boxes must be positioned at a minimum height of 3m in a sheltered area with a clear flight path to the entrance, ideally facing north or east. Where erected on trees, boxes should be affixed using aluminium nails or screws only, the use of copper, zinc or steel affixers in particular must be avoided.
- 5.5.6 A suitably qualified ecologist must direct and/or approve the installation of bird boxes to ensure their suitable placement; this can be achieved by:
- signing off on landscaping proposals showing locations of boxes;
 - providing detailed instruction and signing off on evidence of installation such as photos; or
 - attending site to direct installation via affixture to trees.

Amphibians and Reptiles

- 5.5.7 To enhance the site for amphibians, reptiles, and other species such as hedgehog and common toad, two hibernacula will be created and placed between the reservoir and the woodland to the east and/or tree line to the south. These will be created out of cut logs and brash from the site clearance works, and other inert materials such as bricks. A 1x1m² hole will be dug, filled with logs and inert material, and partially buried so that entrances into the log pile remain open. This will be done under the direction of an ecologist.

5.6 Biodiversity Statement

- 5.6.1 It has been identified that the proposed development is not exempt from the Biodiversity Net Gain (BNG) requirements of 10%, therefore a BNG assessment has been completed to identify the biodiversity losses and gains as a result of the proposals.
- 5.6.2 A Biodiversity Impact Assessment has been produced by UES in January 2024 (UES, 2024), based on condition assessments conducted on 13th July 2022. The BIA identifies an increase in habitat units of 18.82% (3.53 units), and the trading rules are satisfied. There are no impacts on hedgerows or watercourses, therefore these are not included in the assessment.

6 Relevant Legislation and Policy

6.1 Local Planning Policy

6.1.1 The Elmbridge Borough Council's new Local Plan is currently under consultation and therefore the current Local Plan, comprising the Core Strategy 2011 and the Development Management Plan 2015 apply. The following policies are of relevance to this development:

Policy CS15: Biodiversity

The Council will seek to avoid loss and contribute to a net gain in biodiversity across the region and the objectives of the Surrey Biodiversity Action Plan (BAP), by:

- A. Protecting and seeking to improve all sites designated for their biodiversity importance, as identified on the proposals map, in accordance with PPS9: Biodiversity and Geological Conservation and CS13-Thames Basin Heaths Special Protection Area (SPA), including those sites considered as being relevant to the integrity of the South West London Waterbodies SPA and Ramsar site. Criteria based policies against which proposals will be judged for any development on, or affecting, sites of regional or local significance will be brought forward through future DPD's that address Development Management and Site Allocations;
- B. Support the implementation of the Regional Forestry and Woodland Framework by:
 - a) Protecting all woodland, including ancient woodland, as shown on the proposals map, from damaging development and land uses;
 - b) Promoting the effective management, and where appropriate, extension and creation of new woodland areas including, in association with areas of major development, where this helps to restore and enhance degraded landscapes, screen noise and pollution, provide recreational opportunities, helps mitigate climate change, and contributes to floodplain management;
 - c) Replacing woodland unavoidably lost through development with new woodland on at least the same scale;
 - d) Promoting and encouraging the economic use of woodlands and wood resources, including wood fuel as a renewable energy source;
 - e) Promoting the growth and procurement of sustainable timber products.
- C. Protecting and enhancing BAP priority habitats and species and seeking to expand their coverage by supporting the development of the Biodiversity Opportunity Areas; as shown on the proposals map;

- D. Managing and maintaining a mosaic of habitats and rich variety of wildlife across the Council's landholdings in accordance with the Elmbridge Countryside Strategy;
- E. Working in partnership to re-store and enhance:
 - f) The Thames Basin Heaths SPA, in accordance with CS13-Thames Basin Heaths SPA, which is an area of strategic opportunity for biodiversity improvement.
 - g) Brooklands Community Park and Esher Commons Site of Special Scientific Interest (SSSI) in accordance with the Council's most up-to-date mitigation strategy for the Thames Basin Heath SPA and the Esher Commons SSSI Restoration and Management Plan.
- F. Maximising the contribution of other green spaces and features, where appropriate, to the area's biodiversity resources including identifying and developing wildlife corridors to provide ecological 'stepping stones' and form a coherent local and regional biodiversity network in accordance with CS12-The River Thames and its tributaries and CS14-Green Infrastructure;
- G. Directing development to previously developed land in accordance with CS1-Spatial Strategy, taking account of its existing biodiversity value.
- H. Ensuring new development does not result in a net loss of biodiversity and where feasible contributes to a net gain through the incorporation of biodiversity features.

CS13 Thames Basin Heath Special Protection Area (SPA)

- 6.1.2 New residential development which is likely to have a significant effect on the ecological integrity of the Thames Basin Heaths Special Protection Area (SPA) will be required to demonstrate that adequate measures are put in place to avoid or mitigate any potential adverse effects. Such measures must be agreed with Natural England. Priority will be given to directing development to those areas where potential adverse effects can be avoided without the need for mitigation measures. Where mitigation measures are required, the Council will work in partnership to set out clearly and deliver a consistent approach to mitigation, based on the following principles:
1. A zone of influence set at 5km linear distance from the SPA boundary will be established where measures must be taken to ensure that the integrity of the SPA is protected.
 2. Within this zone of influence, there will be a 400m "exclusion zone" where mitigation measures are unlikely to be capable of protecting the integrity of the SPA.
 3. Where development is proposed outside the exclusion zone but within the zone of influence, mitigation measures will be delivered prior to occupation and in perpetuity. Measures will be based on a combination of access management, and the provision of Suitable Accessible Natural Greenspace (SANG).

6.1.3 Where mitigation takes the form of provision of SANG the following standards and arrangements will apply:

A minimum of 8 hectares of SANG land (after discounting to account for current access and capacity) should be provided per 1,000 new occupants;

Developments of fewer than 10 dwellings should not be required to be within a specified distance of SANG land provided it is ensured that a sufficient quantity of SANG land is in place to cater for the consequent increase in residents prior to occupation of the dwellings;

Access management measures will be provided strategically to ensure that the adverse impacts on the SPA are avoided and that SANG functions effectively;

The Council will work in partnership through the Joint Strategic Partnership Board (JSPB) to ensure the delivery of mitigation measures; The Council will co-operate with Natural England and other landowners and stakeholders in monitoring the effectiveness of avoidance and mitigation measures and monitoring visitor pressure on the SPA and review/amend the approach set out in this policy, as necessary;

The Council will collect developer contributions towards mitigation measures, including the provision of SANG land and joint contributions to the funding of access management and monitoring the effects of mitigation measures across the SPA;

Large developments may be expected to provide bespoke mitigation that provides a combination of benefits including SANG, biodiversity enhancement, green infrastructure and, potentially, new recreational facilities.

Where further evidence demonstrates that the integrity of the SPA can be protected using different linear thresholds or with alternative mitigation measures (including standards of SANG provision different to those set out in this policy) these will be agreed with Natural England. Further details are set out within the Delivery Framework (35) and the Council's most up-to-date mitigation strategy.

6.2 Exit from European Union

6.2.1 The Conservation of Habitats and Species Regulations 2017 (as amended), referred to as the '2017 Regulations,' are one of the pieces of domestic law that transposed the land and marine aspects of the Habitats Directive (Council Directive 92/43/EEC) and certain elements of the Wild Birds Directive (Directive 2009/147/EC) (known as the Nature Directives). Changes to the 2017 Regulations have been made by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (referred to as the '2019 Regulations') to transfer functions from the European Commission to the appropriate authorities in England and Wales.

- 6.2.2 The amendments prescribed by the 2019 Regulations allow existing protections afforded by current wildlife legislation and transposed EC Council Directives to be operable from 01 January 2021.
- 6.2.3 The 2019 Regulations protect rare and vulnerable birds and the habitats that they depend upon. This is achieved in part through the classification of Special Protection Areas (SPAs). The Habitats Directive aims to protect plants, habitats and animals other than birds. This is achieved in part through the creation of Special Areas of Conservation (SACs). SPAs and SACs are collectively referred to as the ‘National Site Network’.
- 6.2.4 Designated Wetlands of International Importance (known as Ramsar sites) do not form part of the National Site Network, however, all Ramsar sites remain protected in the same way as SACs and SPAs.

6.3 National Planning Policy Framework

- 6.3.1 The National Planning Policy Framework (NPPF) was updated in December 2023 (DLUHC, 2023) thereby replacing the older version of September 2023. The new framework sets out in section 15 that planning policies and decisions should contribute to and enhance the natural and local environment by ... (d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures (Para 180).
- 6.3.2 To protect and enhance biodiversity and geodiversity (Para 185), plans should:
 - identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation and
 - promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.
- 6.3.3 When determining planning applications, local planning authorities should apply the following principles (Para 186):
 - if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

6.3.4 The following should be given the same protection as habitats sites (Para 187):

potential Special Protection Areas and possible Special Areas of Conservation;

listed or proposed Ramsar sites; and

sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

6.3.5 The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site (Para 188).

6.4 European Protected Species (EPS) Animals

6.4.1 The Conservation of Habitats and Species Regulations 2017 (as amended) transpose the EC Habitats Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Council Directive 92/43/EEC) into national law.

6.4.2 “European protected species” (EPS) of animal are those which are shown on Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (as amended). They are subject to the provisions of Regulation 43 of those Regulations. All EPS are also protected under the Wildlife and Countryside Act 1981 (as amended). Taken together, these pieces of legislation make it an offence to:

- a) intentionally or deliberately capture, injure or kill any wild animal included amongst these species;
- b) possess or control any live or dead specimens or any part of, or anything derived from these species;
- c) deliberately disturb wild animals of any such species;
- d) deliberately take or destroy the eggs of such an animal; or
- e) intentionally, deliberately or recklessly damage or destroy a breeding site or resting place of such an animal, or obstruct access to such a place.

6.4.3 For the purposes of paragraph (c), disturbance of animals includes in particular any disturbance which is likely—

- a) to impair their ability—
 - i. to survive, to breed or reproduce, or to rear or nurture their young; or
 - ii. in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- b) to affect significantly the local distribution or abundance of the species to which they belong.

6.4.4 Although the law provides strict protection to these species, it also allows this protection to be set aside (derogated) through the issuing of licences. The licences in England are currently determined by Natural England (NE) for development works. In accordance with the requirements of The Conservation of Habitats and Species Regulations 2017 (as amended), a licence can only be issued where the following requirements, known as the “Three Tests”, are satisfied:

1. The proposal is necessary ‘to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment’
2. ‘There is no satisfactory alternative’

6.4.5 The proposals ‘will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

6.5 Bats

6.5.1 Bats and their roost sites are protected by UK legislation.

6.5.2 The Wildlife and Countryside Act (1981) (as amended) makes it an offence to:

Intentionally kill, injure or take a bat;

Possess or control any live or dead specimen or anything derived from a bat;
 Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a bat; and
 Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for that purpose.

6.5.3 Additionally, The Conservation of Habitats and Species Regulations 2017 (as amended) make it an offence to:

Deliberately capture or kill a bat;
 Deliberately disturb a bat;
 Damage or destroy a breeding site or a resting place of a bat; and
 Keep, transport, sell or exchange or offer for sale or exchange a live or dead bat or any part of a bat.

6.6 Birds

6.6.1 All nesting wild birds are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition to this, for some rarer species (listed on Schedule 1 of the Act), it is an offence to disturb them whilst they are nest building or at or near a nest with eggs or young, or to disturb the dependent young of such a bird.

6.6.2 The Conservation of Habitats and Species Regulations 2017 (as amended) places duties on competent authorities (including Local Authorities and National Park Authorities) in relation to wild bird habitat. These provisions relate back to Articles 1, 2 and 3 of the EC Directive on the conservation of wild birds (2009/147/EC, 'Birds Directive') (Regulation 10 (3)) requires that the objective is the 'preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat, as appropriate, having regard to the requirements of Article 2 of the new Wild Birds Directive...' Regulation 10 (7) states: 'In considering which measures may be appropriate for the purpose of security or contributing to the objective in [Regulation 10 (3)] Paragraph 3, appropriate account must be taken of economic and recreational requirements'.

6.6.3 In relation to the duties placed on competent authorities under the 2017 Regulations (as amended), Regulation 10 (8) states: 'So far as lies within their powers, a competent authority in exercising any function [including in relation to town and country planning] in or in relation

to the United Kingdom must use all reasonable endeavours to avoid any pollution or deterioration of habitats of wild birds (except habitats beyond the outer limits of the area to which the new Wild Birds Directive applies).’

6.7 Badgers

6.7.1 Badger is protected under the Protection of Badgers Act 1992. It is not permitted to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so; or to 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 to it. A badger sett is defined in the legislation as “a structure or place, which displays signs indicating current use by a badger”.

6.7.2 ODPM Circular 06/2005 (ODPM, 2005) provides further guidance on statutory obligations towards badger within the planning system. Of particular note is paragraph 124, which states that “The likelihood of disturbing a badger sett, or adversely affecting badgers’ foraging territory, or links between them, or significantly increasing the likelihood of road or rail casualties amongst badger populations, are capable of being material considerations in planning decisions.”

6.7.3 Natural England provides Standing Advice (Gov.uk, 2015), which is capable of being a material consideration in planning decisions. Natural England recommends mitigation to avoid impacts on badger setts, which includes maintaining or creating new foraging areas and maintaining or creating access (commuting routes) between setts and foraging/watering areas.

6.8 Wild Mammals

6.8.1 The Wild Mammals (Protection) Act 1996 (as amended) makes provision for the protection of wild mammals from certain cruel acts, making it an offence for any person to intentionally cause suffering to any wild mammal. In the context of development sites, for example, this may apply to rabbits in their burrows.

6.9 Invasive non-native species

6.9.1 An invasive non-native species is any non-native animal or plant that has the ability to spread causing damage to the environment.

6.9.2 Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to release, or to allow to escape into the wild, any animal which is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state or is listed under Schedule 9 of the Act.

6.9.3 It is an offence to plant or otherwise cause to grow in the wild invasive non-native plants listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

6.10 Hedgerows

6.10.1 Article 10 of the Habitats Directive requires that ‘Member States shall endeavour...to encourage the management of features of the landscape which are of major importance for wild fauna and flora. Such features are those which, by virtue of their linear and continuous structure...or their function as steppingstones...are essential for the migration, dispersal and genetic exchange of wild species’. Examples given in the Directive include traditional field boundary systems (such as hedgerows).

6.10.2 The aim of the Hedgerow Regulations 1997, according to guidance produced by the Department of the Environment, is “to protect important hedgerows in the countryside by controlling their removal through a system of notification. In summary, the guidance states that the system is concerned with the removal of hedgerows, either in whole or in part, and covers any act which results in the destruction of a hedgerow. The procedure in the Regulations is triggered only when land managers or utility operators want to remove a hedgerow. The system is in favour of protecting and retaining ‘important’ hedgerows.

6.10.3 The Hedgerow Regulations set out criteria that must be used by the local planning authority in determining which hedgerows are ‘important’. The criteria relate to the value of hedgerows from an archaeological, historical, wildlife and landscape perspective.

7 References

- BCT & ILP (2023). Guidance Note GN08/23 Bats and artificial lighting at night. Bats and the Built Environment series
- CIEEM (2017). Guidelines for preliminary ecological appraisal, 2nd edition. Chartered institute of Ecology and Environmental management, Winchester
- Collins, J. (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn). The Bat Conservation Trust, London.
- DLUHC (2023). National Planning Policy Framework. Department for Levelling Up, Housing and Communities.
- Gov.uk (2015a). Guidance. Bats: surveys and mitigation for development projects. Natural England and Department for Environment, Food & Rural Affairs, Worcester.
- Gov.uk (2015b). Guidance. Badgers: surveys and mitigation for development projects. Natural England and Department for Environment, Food & Rural Affairs, Worcester.
- Herpetological Conservation Trust (2008). Habitat Suitability Index – Guidance Notes. National Amphibian and Reptile Recording Scheme. HCT.
- MD Landscape (2024). Burhill Landscape Proposals Plan 305-L-100_P01. Cheshire
- Natural England (2020). GCN Method Statement WML-A14-2 (Version April 2020) the Conservation of Habitats and Species Regulations 2017 (as amended) Method Statement to support application for licence under Regulation 55(2)(e) in respect of great crested newts Triturus cristatus. Natural England, Worcester.
- Neal, E., and Cheeseman, C.L. (1996). Badgers. T & AD Poyser Natural History Ltd, London
- Roper, T.J. (2010). Badger. Harper Collins.
- Stace, C. (2019). New British Flora of the British Isles, fourth edition. Cambridge University Press.
- UKHab Ltd. (2023). UK Habitat Classification Version 2.0 at <https://ukhab.org>
- United Environmental Services Ltd (2021). 20210526 GCN eDNA Letter of Findings – Burhill Golf Club. Cheshire
- United Environmental Services Ltd (2024). 20240105 UES Biodiversity Net Gain Assessment Metric – Burhill Golf Club, Hershams. Cheshire
- United Environmental Services Ltd (2024). 20240105 UES Biodiversity Net Gain Assessment Report – Burhill Golf Club, Hershams. Cheshire

Appendix 1 - Photographs

Photograph 1: Other neutral grassland with tall herbs (PR1)



Photograph 2: Blackthorn scrub and bramble mosaic (PR3)



Photograph 3: Modified grassland (access route) (PR2)



Photograph 4: Bramble scrub (PR4) with log piles



Photograph 5: Oak tree (T1)



Photograph 6: Wet woodland (PR6) in background



Photograph 7: Pond 2



Photograph 8: Ditch 2



Photograph 9: Pond 1



Photograph 10: Ditch 1



Photograph 11: Pond 3



Photograph 12: Pond 4

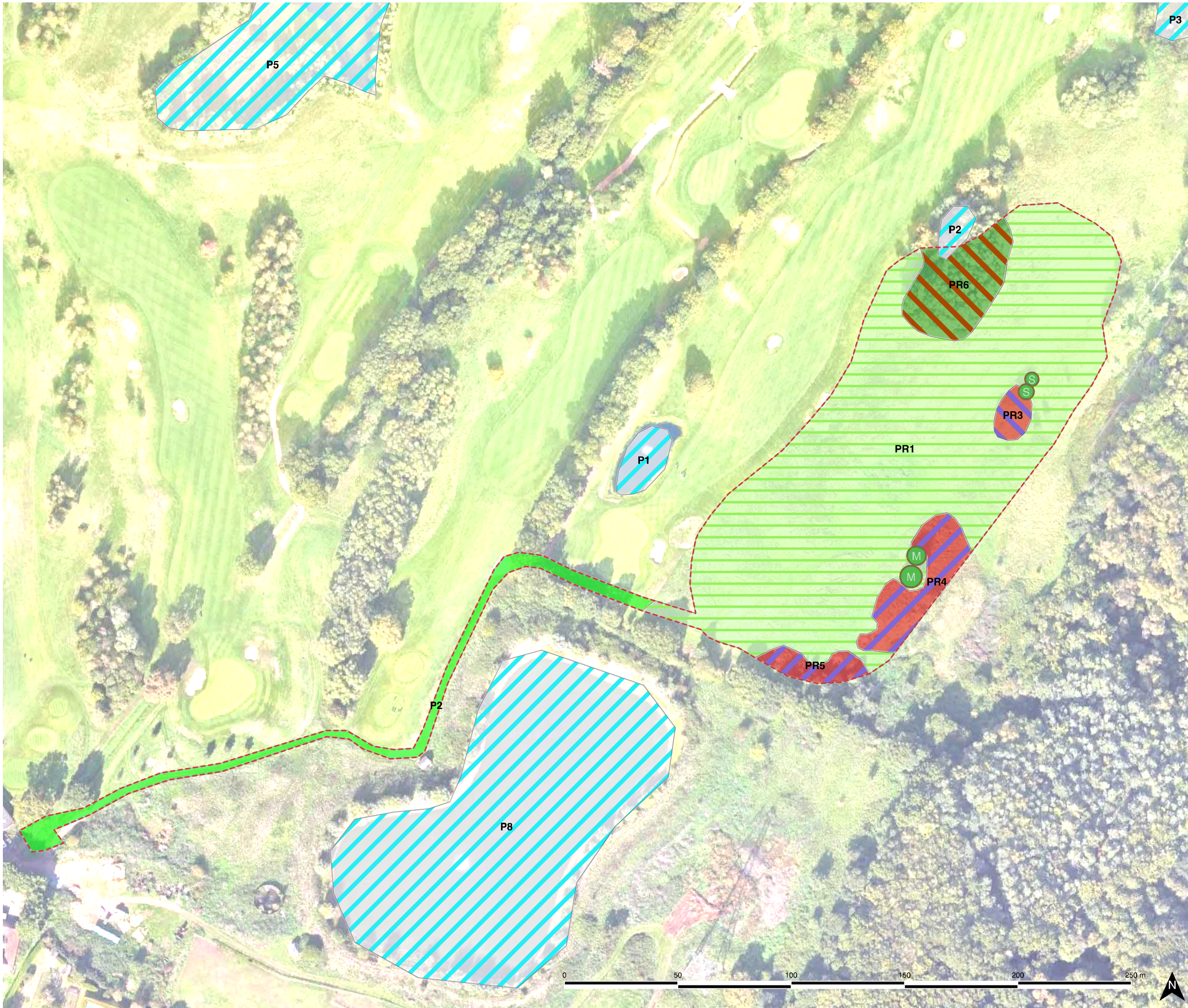


Appendix 2 - Figures

Next page:

Figure 1: Baseline Habitats

Figure 2: Pond Map



LEGEND

- Site Boundary (2.3 ha)
- g3c - other neutral grassland (1.7948 ha)
- g4 - modified grassland (0.1536 ha)
- h3a - blackthorn scrub (0.0288 ha)
- h3d - bramble scrub (0.1644 ha)
- r1 - standing open water and canals (2.997 ha)
- w1d - wet woodland (0.1566 ha)
- M u(11) - scattered tree, medium (2 trees)
- S u(11) - scattered tree, small (2 trees)

Location (1:75,000):



Project:
Burhill Golf Club

Client:
Burhill Group Ltd

Drawing Title:
UKHab Habitat Survey

Drawing No.:	Scale (@A3):
EBD_1110_DR001	1:1,600
Central Eastings, Northings:	Date Drawn:
510862, 162287	14/03/2024
Drawn by:	Approved by:
EP	BG

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- LEGEND**
- Site Boundary (2.3 ha)
 - 250m buffer
 - 500m buffer
 - r1 - standing open water and canals (2.997)
 - r2b - Other Rivers and Streams (1.52 km)
 - r1(191) - Ditches (3.06 km)

Location (1:75,000):



Project:
Burhill Golf Club
Client:
Burhill Group Ltd

Drawing Title:
Pond Map

Drawing No.: EBD_1110_DR001	Scale (@A3): 1:4,727.872669
Central Eastings, Northings: 510852, 162277	Date Drawn: 14/03/2024
Drawn by: EP	Approved by: BG

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Appendix 3 - Habitat Suitability Index (HSI)

Water Body	Habitat Suitability Index Factor											Pond Suitability
	Geographic Location	Pond Area m ²	Pond Drying	Water Quality	Shade %	Fowl	Fish	Pond Count (1km)	Terrestrial	Macrophytes %	Overall Score	
Pond 1	1	0.7	0.9	0.67	1	1	1	0.9	0.67	0.4	0.87	Excellent
Pond 2	1	0.6	1	0.67	0.4	1	1	0.9	1	1	0.82	Excellent
Pond 3	1	0.8	0.9	0.67	0.2	1	1	0.9	1	0.6	0.78	Good
Pond 4	1	0.8	0.9	0.67	1	0.01	0.33	0.9	0.9	0.67	0.50	Below Average
Pond 5	1	/	0.9	0.67	1	0.01	0.33	0.9	0.67	0.6	0.52	Below Average
Pond 6	1	/	0.9	0.67	1	0.01	0.33	0.9	0.67	0.5	0.51	Below Average
Pond 7	1	0.3	0.5	0.67	0.6	1	1	0.9	1	0.6	0.75	Good
Pond 8	1	/	0.9	0.67	1	0.67	0.33	0.9	1	0.4	0.76	Good
Pond 9	Discounted – situated across major dispersal barrier											
Ditch 1	1	1	0.1	0.67	0.3	1	1	0.9	0.33	0.4	0.60	Average
Ditch 2	1	1	0.1	0.67	0.2	1	1	0.9	1	0.3	0.64	Average
Ditch 3	1	1	0.1	0.67	1	1	1	0.9	0.67	0.4	0.73	Good

HSI Thresholds:

<0.5 = Poor

0.5 – 0.59 = Below average

0.6 – 0.69 = Average

< 0.79 = Good

> 0.8 = Excellent

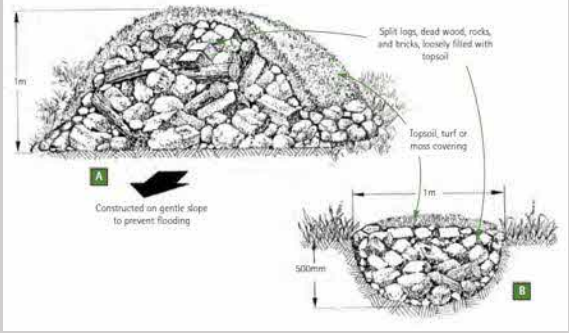

Appendix 4 - Definitions of the Geographic Context of Habitat Importance

Geographic Context of Importance	Examples
International value	Ramsar Sites, Special Protection Areas, Biosphere Reserves, Special Areas of Conservation. Sites supporting populations of internationally important species.
National value	SSSIs or non-designated Sites meeting SSSI selection criteria, NNRs, Marine Nature Reserves, NCR Grade 1 Sites. Sites containing viable areas of key habitats identified in the UK Biodiversity Action Plan.
Regional value	Sites containing viable areas of threatened habitats listed in a Regional BAP (or some Natural Areas), comfortably exceeding SINC criteria, but not exceeding SSSI criteria.
County / Metropolitan	Sites meeting the criteria for county or metropolitan designation (SINC, CWS, etc.). Ancient semi-natural woodland, LNRs or viable areas of key habitat types listed in county BAPs/Natural Areas.
District / Borough	Undesignated Sites or features considered to appreciably enrich the habitat resource in the District or Borough.
Local i.e. Parish / Neighbourhood	Undesignated Sites or features which appreciably enrich the habitat resource within the Parish or Neighbourhood.
Negligible value	Low grade and widespread habitats.

Appendix 5 - Definitions of the geographic Context of Species Importance

Geographic Context of Importance	Examples
International	<p>Any regularly occurring population of an internationally important species, which is threatened or rare in the UK. i.e. it is a UK Red Data Book species or listed as occurring in 15 or fewer 10km squares in the UK (categories 1 and 2 in the UK BAP) or of uncertain conservation status or of global conservation concern in the UK BAP.</p> <p>A regularly occurring, nationally significant population/number of any internationally important species.</p>
National	<p>Any regularly occurring population of a nationally important species which is threatened or rare in the region or county (see local BAP).</p> <p>A regularly occurring, regionally or county significant population/number of any nationally important species.</p>
Regional	<p>Any regularly occurring, locally significant population of a species listed as being nationally scarce which occurs in 16-100 10km squares in the UK or in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a regionally important species.</p>
County/ Metropolitan	<p>Any regularly occurring, locally significant population of a species which is listed in a County/Metropolitan “red data book” or BAP on account of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a County/Metropolitan important species.</p>
District / Borough	<p>A population of a species that is listed in a District/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a District / Borough important species during a critical phase of its life cycle.</p>
Local i.e. Parish / Neighbourhood	<p>Species that are not threatened but are valued at a local level on intrinsic appeal.</p>
Negligible	<p>Common or widespread species.</p>

Appendix 6 - Proposed Enhancements

Products	Description
	<p>Hibernacula</p> <p>A place of refuge for herpetofauna includes newts and reptiles. Constructed by digging a hole and backfilling with logs/ rubble before covering with soil turf.</p>
	<p>2F Schwegler Bat Box (or similar)</p> <p>A standard bat box for smaller bats to be placed on a mature tree.</p> <p>http://www.nhbs.com/2f-schwegler-bat-box-general-purpose</p>
	<p>Schwegler Bird Box 1B</p> <p>The 1B nest box will attract a wide range of species and is available with different entrance hole sizes to prevent birds from competing with each other for the boxes.</p> <p>https://www.nhbs.com/1b-schwegler-nest-box</p>