Landscape Architecture Masterplanning Ecology



56A FOREST WAY, WARFIELD PARK

ECOLOGICAL APPRAISAL

Prepared for Warfield Homes Ltd.

by

Hankinson Duckett Associates

HDA ref: 554.2

December 2021

hankinson duckett associates

† 01491 838175 f 01491 838997 e consult@hda-enviro.co.uk w www.hda-enviro.co.uk The Stables, Howbery Park, Benson Lane, Wallingford, Oxfordshire, OX10 8BA

Hankinson Duckett Associates Limited Registered in England & Wales 3462810 Registered Office: The Stables, Howbery Park, Benson Lane, Wallingford, OX108BA

Contents

Page

1	Introduction	1
2	Methodology	1
3	Desk study	. 5
4	Phase 1 habitat survey	10
5	Protected and notable species	12
6	Nature conservation evaluation	16
7	Additional data requirements	17
8	Recommendations	18
9	Conclusion	23
10	References	23

HDA Document Control and Quality Assurance Record

APPENDICES

А	Desk study results
---	--------------------

- B Phase 1 habitat survey: map and target notes
- C Phase 1 bat scoping survey plan
- D Phase 1 bat scoping photographs
- E Evaluation criteria

1 INTRODUCTION

- 1.1 This report describes an Ecological Appraisal, including a Phase 1 bat scoping survey and Badger survey, of approximately 0.1ha of land and its immediate surrounds at 56A Forest Way, Warfield Park, Bracknell, hereinafter referred to as 'the site'. The site centre is located by National Grid Reference SU 89105 70470. The study was commissioned by Warfield Homes Ltd. in July 2021.
- 1.2 In general terms, the site comprises a disused prefabricated dwelling and associated hardstanding and gravel together with patches of colonising scrub, grassland and ephemeral vegetation. The site is located within the interior of Warfield Park, to the northeast of Bracknell in Berkshire. It is bordered by existing park home properties immediately to the east and west; by an area of mature trees and scrub to the north; and by The Elms access road to the south. The remainder of Warfield Park, consisting of a development of residential park homes set within small enclosed gardens, dominates the landscape of the wider area on all sides. The location and boundary of the site are shown in *Appendix A*.
- 1.3 The site is proposed for the removal of the existing building and provision of one replacement dwelling with associated infrastructure and gardens.
- 1.4 The aims of this study are:
 - i. To assess the likely nature conservation importance of habitats within the site;
 - To assess the likely presence of protected species and Habitats and Species of Principal Importance identified under Section 41 of the 2006 NERC Act;
 - iii. To identify any potential constraints to development due to the above;
 - iv. To identify requirements for any additional ecological surveys in support of a planning application; and
 - v. To identify measures to avoid and mitigate potential effects of development on identified features of ecological interest.

2 METHODOLOGY

2.1 Desk study

2.1.1 Existing ecological and nature conservation data relevant to the site was collated from various sources including the 'Multi Agency Geographic Information for the Countryside' (MAGIC) online database (www.magic.defra.gov.uk) and the Bracknell Forest Council website (https://www.bracknell-forest.gov.uk/). This work included a check for statutory designated sites within up to 10km of the site and non-statutory sites within 2km of the site. The findings of the desk study are summarised in *Section 3* below and the full results are given in *Appendix A*.

2.2 Field survey

2.2.1 The field survey comprised an extended Phase 1 habitat survey (JNCC, 2016) a Badger Survey and Phase 1 bat scoping survey carried out by Anna Potter of HDA on 27th July 2021. A total of 1.5 hours were spent carrying out the field surveys. Weather conditions were mild and overcast.

Extended Phase 1 habitat survey

2.2.2 The extended Phase 1 habitat survey involved walking over the site mapping the main habitat types and compiling detailed 'target notes'. Target notes record habitat features and a list of vascular plant species noted, together with a qualitative assessment of relative abundance. An initial assessment was also made of the potential for the site to support protected and notable species based on the character of the habitats present.

Phase 1 bat scoping survey

2.2.3 The Phase 1 bat scoping survey comprised an assessment of the value of buildings and trees within and adjacent to the site for their potential to support roosting bats.

Phase 1 building survey

- 2.2.4 All buildings within the site were inspected externally from ground level using binoculars and a powerful torch to identify and investigate any potential entry and exit points such as missing roof tiles, loose fascias and lifted lead flashing, and to look for evidence of entry/exit in the form of staining, discolouration and/or scratch marks.
- 2.2.5 Internally, buildings were searched exhaustively where possible to look for evidence of current or former occupation by bats. A powerful torch was used to investigate any accessible cavities, crevices and recesses in each building.
- 2.2.6 In view of the findings of the building inspection, the potential of the buildings to support roosting bats ('confirmed roost', 'high', 'moderate', 'low' or 'negligible') was assessed. Assessment of bat roosting potential requires consideration of a number of criteria, including the design and construction of the building or structure, the size and location of potential features and access points, the position of the building or structure, aspect, geographical location, surrounding land use and adjacent landscape linkages.

Phase 1 tree survey

2.2.7 All trees within and immediately adjacent to the site were inspected from ground-level, with the aid of binoculars and a powerful torch, to identify potential features suitable for use by roosting and/or hibernating bats. Potential features include splits, cracks and cavities, peeling bark, woodpecker holes, broken branches and a covering of lvy where this is of a sufficient age to provide a suitable microclimate between the tree and lvy stem(s).

- 2.2.8 In accordance with best practice guidelines (BCT, 2016), trees were placed into one of five categories. Categorisation was based on the nature, size, location and quality of features present in each tree:
 - Negligible suitability Trees with no or negligible features for roosting bats;
 - Low suitability Trees of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential;
 - Moderate suitability Trees with one or more potential roost sites that could be used by bats but are unlikely to support roost types of high conservation status;
 - High suitability Trees with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time; or
 - Known or confirmed bat roost.
- 2.2.9 The results of the Phase 1 bat scoping survey determine the need for further surveys in relation to bats.

Badger survey

2.2.10 The Badger survey comprised a systematic search of the site and a 30m buffer around the edge of the site, where accessible, for Badger setts and evidence of Badger activity. For each confirmed Badger sett a recording card was completed detailing the type of sett, number of entrances and level of activity (from disused to active).

Other species

2.2.11 Observations on the presence, or potential presence, of other protected species, were recorded as incidental information to the extended Phase 1 habitat survey and this information should not be relied on as a comprehensive assessment of the presence or otherwise of all protected species on the site. This is because there is a wide range of protected species, many of which can occur on one site, and most require specialist expertise to locate them and/or season-critical survey techniques to confirm their presence, and this is outside the scope of the present report.

2.3 Evaluation criteria

2.3.1 The evaluation of the site, and the habitats within it, is based on the results of the field surveys described above, any designations pertaining to the site and existing ecological information collected during the desk study.

- 2.3.2 Each ecological resource (site, habitat, species or feature) was assigned a value at the following geographic scales (CIEEM, 2019):
 - International
 - National
 - Regional
 - County / Metropolitan
 - District / Borough
 - Local / Parish
 - within immediate zone of influence only (site/ negligible)
- 2.3.3 Assigning value is relatively straightforward in the case of designated sites, and undesignated sites meeting designation criteria. However, in most cases evaluation of ecological resources is not straightforward and requires a degree of knowledge, training, experience and professional judgement (Usher, 1986; Spellerberg, 1992). Evaluation of an ecological resource was based on a number of criteria (Ratcliffe, 1977; CIEEM 2018). These are summarised in *Appendix E*.
- 2.3.4 The potential for protected and notable species and Habitats and Species of Principal Importance identified under Section 41 of the 2006 Natural Environment and Rural Communities (NERC) Act to be present within the site has been assessed on the basis of the habitats and features present and the results of the desk study.

2.4 Limitations

- 2.4.1 Due to the nature of the redevelopment proposals, the small size of the site and the character of the habitats present, which are dominated by previously developed land, semi-improved grassland and scrub, records of protected species were not obtained from the local Biological Records Centre as part of the desk study. Instead an assessment of the potential of the site to support protected and notable species was based on the habitats within and adjacent to the site observed during the field survey together with HDA's wide experience of project work in the general area.
- 2.4.2 During the Badger survey, some of the land surrounding the site within the 30m survey buffer could not be accessed or viewed adequately to confirm the absence of Badger setts due to the land being located within the residential curtilage of private dwellings. However, this is not considered to be a significant limitation as the inaccessible areas were small gardens, fenced off with solid panel fencing. Such areas were viewed from adjacent land where possible and examined for evidence of paths leading into them. There was no obvious evidence of Badger setts being present within these areas, and no evidence of mammal paths or Badger activity (e.g. latrines or footprints) was recorded

during the survey. As such it is considered unlikely that undetected Badger setts were present in the immediate vicinity of the site.

2.4.3 It is therefore considered that the field surveys and desk study were not subject to any significant constraints and the studies conducted are adequate to make a robust assessment of the site's likely nature conservation significance and to form the basis of the recommendations provided in *Sections 7* and *8* of this report.

3 DESK STUDY

3.1 Introduction

3.1.1 The following section summarises the findings of the desk study. The extent of designated areas in the vicinity of the site are illustrated on the plans in *Appendix A* and are described below. The findings of the field surveys and an assessment of the site's potential to support protected species and Species of Principal Importance are given in *Sections 4* and *5*.

3.2 Designated sites

3.2.1 No statutory designated sites are located within or immediately adjacent to the site. Designated areas associated with the site and its surrounds are described below.

Internationally designated areas

- 3.2.2 Three internationally designated areas are located within 10km of the site boundary. These are:
 - The Thames Basin Heaths Special Protection Area (SPA) is located approximately 4km south of the site. This 8274.72ha SPA comprises open heathland, scrub and woodland supporting internationally significant numbers of ground-nesting birds, including Nightjar, Woodlark and Dartford Warbler;
 - Windsor Forest & Great Park Special Area of Conservation (SAC) and Special Site of Scientific Interest (SSSI) is located approximately 4.7km to the east of the site. This 1680.18ha SAC consists of old acidophilous Oakwoods and has the largest number of veteran oaks, *Quercus* spp., in Britain. The site provides habitat for a range of rare species of invertebrates, including an internationally important population of Violet Click Beetle along with rich assemblages of other Red Data book beetles and flies; and
 - Thursley, Ash, Pirbright & Chobham SAC is located approximately 8.3km southeast of the site. The 5154.5ha SAC comprises a mosaic of habitats including heathland with qualifying habitats of Cross-leaved heath, dry heaths and peat substrates and also forms part of the Thames Basin Heaths SPA (see above).

Nationally designated areas

- 3.2.3 There are no National Nature Reserves (NNRs) within 5km of the site.
- 3.2.4 In addition to Windsor Forest & Great Park SSSI there are five other Sites of Special Scientific Interest (SSSIs) located within 5km of the site. These are:
 - Englemere Pond SSSI is located approximately 2km southeast of the site. This 25.59ha SSSI comprises a large pond surrounded by a wide fringe of reed swamp dominated by Common Reed. Away from the open water, the reed-swamp grades into an interesting plant community typical of base-poor conditions. The transition from open water through base-poor wetland to dry ground is an exceptionally good example of this type of habitat, which is relatively scarce in the lowlands;
 - Swinley Park and Brick Pits SSSI is located approximately 2.6km south of the site. This 86.8ha SSSI comprises the most important concentration of ancient broadleaved trees remaining in the southern sector of Windsor Forest. Most of the area consists of conifer plantations with patches of broadleaved trees, but scattered throughout are a number of ancient Oaks, Beech and Sweet Chestnut. The site also includes Swinley Brick Pits, an area of old clay pits now much overgrown by Birch, Pine and Rhododendron and including a number of small pools providing ideal habitat for several species of dragonflies and secluded cover for waterfowl, as well as breeding sites for all three native species of newt;
 - Chawridge Bourne SSSI is located approximately 2.9km north of the site. This 8.94ha SSSI is an area of unimproved grassland, scrub and broadleaved woodland containing species of plants local to or rare in east Berkshire. The SSSI is situated on London Clay soils and lies along the banks of a small stream. Approximately half the area consists of unimproved neutral to acid grassland, a habitat which is rare in Berkshire because of agricultural development;
 - Broadmoor to Bagshot Woods SSSI is located approximately 4.1km south of the site. This 1696.99ha SSSI comprises an extensive mosaic of broadleaved woodland, coniferous plantation, dry and wet heathland, valley mire, a series of base-poor ponds, and supports a scarce breeding invertebrate assemblage. The SSSI also supports a nationally important dragonfly and damselfly population and forms part of the Thames Basin Heaths SPA on the basis of its populations of Woodlark, Nightjar and Dartford Warbler;
 - Wykery Copse SSSI is located approximately 4.2km southwest of the site. This 3.15ha SSSI is a fragment of ancient broadleaved woodland of a kind now drastically reduced in Berkshire, situated on London Clay on the fringe of Bracknell. It is exceptionally diverse for its size, in terms of both woodland standtypes and herbaceous flora, and it contains several rarities, including Thin-spiked Wood Sedge, Pale Sedge and Early Purple Orchid; and

- 3.2.5 The site falls within the 1km-2km Impact Risk Zone (IRZ) for Englemere Pond SSSI, and the 2km-3km IRZs for Swinley Park and Brick Pits SSSI and Chawridge Bourne SSSI and within the 4-5km IRZ for Broadmoor to Bagshot Woods SSSI/ Thames Basin Heaths SPA as identified from the MAGIC online database. Natural England uses IRZs to identify development activities in the vicinity of SSSIs, SPAs and SACs that may adversely affect designated features in the absence of mitigation and avoidance measures, thereby requiring planning authorities to consult with Natural England where potentially damaging activities are proposed. The IRZs relevant to the site identify, among others, the following types of development activity relevant to the proposed development which should be subject to consideration for its potential to result in adverse effects on these designated sites:
 - Residential: Any residential developments with a total net gain in residential units.
 - Rural Residential: Any residential developments outside of existing settlements/urban areas with a total net gain in residential units.

The proposed development is for replacement of an existing dwelling and no net gain in residential units is proposed. As such Natural England would be not expected to be consulted on proposals for the proposed development at the site.

3.2.6 Four Local Nature Reserves (LNRs) are located within 2km of the site. These are:

- Hayley Green Wood LNR is located approximately 315m north-west of the site. The habitats present include mixed deciduous woodland with Ash, Willow and Silver Birch trees;
- White Grove Copse LNR is located approximately 1.1km south of the site. The site contains important wildlife relating to the diverse ancient woodland habitats present, including spring flowers such as English Bluebell, deadwood and old trees;
- Englemere Pond LNR is located approximately 2km southeast of the site, and forms part of the wider SSSI described above. The site comprises a shallow acidic lake with habitats ranging from open water to marsh surrounded by commercial forest and European importance heathland rich with flora and fauna; and
- Piggy Wood LNR is located approximately 2km west of the site. The site contains species relating to ancient woodland habitats, including Bluebell and Wood Anemone, with a variety of damselflies and dragonflies around the tributary of the Cut.
- 3.2.7 LNRs are designated for features of special interest locally and/or provide opportunities to learn about and enjoy wildlife.

Non-statutory designated areas

- 3.2.8 The closest Local Wildlife Sites (LWSs) within the desk study area include:
 - The boundary of the 17.5ha Bigwood LWS is located approximately 230m east of the site. This LWS is cited as being largely semi-natural secondary woodland, although some areas might have been wooded for some considerable time. The main woodland stand type consists of acid Oak and Birch woodland. There are significant wet areas and streams lined with willow forming carr. Some of the spring line flushes have much *Sphagnum* sp. moss, which is rare in Berkshire; and
 - Adjacent to Chavey Down LWS lies 290m to the east of the site. This site is a group of three fields, separated by hedgerows, with wet areas next to a stream that runs through the LWS. This LWS is located between two woodland Local Wildlife Sites with which it forms a large complex of diverse habitats. Ragged Robin and Cuckooflower are found in the wetter areas;
 - Chavey Down Pond LWS lies 660m southeast of the site. This LWS comprises
 a small mixed wood containing a small stream and spring, which gives rise to a
 boggy area;

Ancient woodland

3.2.9 Eleven parcels of woodland listed on Natural England's Ancient Woodland Inventory are located within 2km of the site, none of which pertain to the site itself. The closest listed area to the site is located within Big Wood, approximately 430m to the south-west of the site.

3.3 Biodiversity Action Plan and NERC Act Habitats and Species of Principal Importance

- 3.3.1 The UK Biodiversity Action Plan (BRIG, 2011) lists habitats and species which have undergone significant declines in recent years and for which conservation is a priority in order to preserve biodiversity in the UK. The BAPs provide a list of actions to be implemented to halt or reverse these declines.
- 3.3.2 These habitats and species are identified as Habitats and Species of Principal Importance for the conservation of biological diversity in England under Section 41 of the 2006 NERC Act. Together with the 2021 National Planning Policy Framework (NPPF) and underpinning guidance (ODPM 2005), Section 40 of the 2006 NERC Act requires that these habitats and species are a material consideration in the planning process.
- 3.3.3 The Berkshire BAP uses the Biodiversity Opportunity Area (BOA) approach to deliver BAP habitat targets. BOAs identify the areas of the county with the best opportunities for habitat creation and restoration, and the main aim within BOAs is to restore biodiversity at

a landscape scale. The site is not located within any BOA but is located approximately 1.4km north at its closest point to the Thames Basin Heath BOA, which includes the Thames Basin Heaths SPA and the area between Bracknell and Ascot, including Swinley Park and Brick Pits SSSI and Englemere Pond SSSI. To the west, the BOA includes a band of land south of Crowthorne and Wokingham where there are more heathland and bog sites such as Sandhurst to Owlsmoor Bogs and Heaths SSSI and a group of sites with remnants of these habitats.

- 3.3.4 The Berkshire BAP contains objectives and targets for each species and habitat identified. These should be considered for any development proposal at the site, both in terms of impact avoidance and opportunities to enhance the site and contribute to BAP targets. Some of the priority habitats in Berkshire include:
 - Lowland mixed deciduous woodland;
 - Lowland calcareous grassland;
 - Lowland dry acid grassland; and
 - Eutrophic standing water.

3.4 Protected species

- 3.4.1 A search of online data sources, including granted European Protected Species (EPS) licences listed on MAGIC, identified six records of protected species all relating to Great Crested Newt within 2km of the site. The closest record of Great Crested Newt relates to a survey from 2015-2017 undertaken on a pond approximately 1.4km west of the site.
- 3.4.2 No other records of protected species such as bats, Dormouse, Otter, or any reptile species were identified for the desk study area.

3.5 Planning policies

3.5.1 Relevant policies from the Bracknell Forest Borough Local Plan 2002 (saved policies) include:

Policy EN1 Protecting Tree and Hedgerow Cover

Planning permission will not be granted for development which would result in the destruction of trees and hedgerows which are important to the retention, where applicable, of:

- I. a clear distinction between built up areas and the countryside; or
- II. the character and appearance of the landscape or townscape; or
- III. green links between open spaces and wildlife heritage sites; or
- IV. internationally, nationally or locally rare or threatened species; or
- V. habitats for local wildlife; or
- VI. areas of historic significance.

Policy EN2 Supplementing Tree and Hedgerow Cover

In imposing landscaping conditions to secure additional tree and/or hedge planting, the borough council will require developers to include in their schemes the planting of

indigenous trees appropriate to the setting and character of the area and a variety of other indigenous plants. According to circumstances, these may include grasses, heathland or wetland species.

Policy EN3 Nature Conservation

Planning permission will not be granted for development likely to have a significant effect on the following areas unless their special value and character can be protected or there are imperative reasons of overriding public interest:

- I. existing and potential special protection areas (spas);
- II. existing and candidate special areas of conservation (sacs);
- III. sites of special scientific interest (sssis).

The borough council will seek to enter into agreements concerning enhancement schemes as part of development proposals; these will incorporate, where appropriate, the management of public access into the site.

Policy EN4 Local Nature Reserves, Wildlife Heritage Sites and Regionally Important Geological sites

Planning permission will not be granted on or near local nature reserves, wildlife heritage sites or regionally important geological/geomorphological sites unless the proposed development will not affect the wildlife and habitats for which the site was designated or the special character of the site. Development proposals on these sites must include conservation or enhancement schemes which, where appropriate, will set out the provision for, and management of, public access to and within them.

Policy EN11 Warfield Park Mobile Home Site

Development will be permitted only where it does not detract from the character or appearance of the mobile home site.

Warfield Park Mobile Home Site covers 30 hectares and is located in the countryside area south of Forest Road, east of Whitegrove. The site is bounded to the north and south by woodland of considerable amenity value, and the mobile homes themselves are laid out in an attractive wooded setting. The Borough Council will seek to maintain the character of the site and ensure that the existing homes retain their secluded setting.

4 PHASE 1 HABITAT SURVEY

4.1 General description

- 4.1.1 The results of the Phase 1 habitat survey are presented in map form with target notes (represented by numbered dots) in *Appendix B*. A brief non-technical description of the habitats and features of the site and wider survey area is given below. Botanical names follow Stace (2019) for higher plants. Numbers in brackets refer to target notes.
- 4.1.2 In general terms, the site comprises a disused prefabricated home and associated hardstanding and gravel and an area of grassland which are becoming encroached by scrub, ruderal, perennial and ephemeral vegetation. The site is enclosed by timber panel fencing. The site is bordered by existing park home properties immediately to the east and west; by an area of mature trees and scrub to the north; and by The Elms access road to the south. The remainder of Warfield Park, consisting of a development of residential park homes set within small, enclosed gardens, dominates the landscape of

the wider area on all sides. The location and boundary of the site are shown in *Appendix A*.

4.2 Scattered trees and scrub

4.2.1 The site is currently unmaintained, and patches of scrub are beginning to colonise the site in places. This includes an area of dense Bramble scrub with Hedge Bindweed and Pendulous Sedge in the east of the site (4, 8), an area of dense Bramble with Willow and Sycamore saplings along the western boundary (6), and scattered Buddleia and Sycamore saplings colonising cracks in the hardstanding in the central and southern areas of the site (2).

4.3 Species-poor semi-improved grassland

4.3.1 An area of species-poor semi-improved grassland is present in the north of the site (5) which has become rough through a lack of recent management. Dominant grass species include Yorkshire Fog, Annual Meadow-grass and Cocksfoot. Herbaceous species include Wood Avens, Common Ragwort, Herb Robert, Nipplewort, Black Medick, Common Bird's-foot-trefoil, Cleavers, Common Daisy, Rosebay Willowherb and Dandelion. Springy Turf-moss is also present.

4.4 Short perennial and ephemeral vegetation

4.4.1 Areas of unmaintained gravel and hardstanding in the south of the site are becoming colonised with short perennial and ephemeral vegetation (2). Species include Ribwort Plantain, Shepherd's Purse, Smooth Sow-thistle, Creeping Buttercup, Nipplewort, Herb Robert, Rough Hawkbit, Common Daisy and small clumps of Pendulous Sedge.

4.5 Tall ruderal vegetation

4.5.1 A large soil mound is present in the south-western corner of the site (3). This is colonised with tall ruderal vegetation with species including Buddleia, Great Willowherb, Common Ragwort, Prickly Sow-thistle, Cats-ear, Hedge Woundwort, Purple Toadflax, Tufted Vetch, Common Nettle, Broad-leaved Dock, Shield Fern, Pendulous Sedge, Bramble, Annual Meadow-grass, Cocksfoot and Yorkshire Fog. Sycamore and Goat Willow saplings are also scattered throughout.

4.6 Introduced shrubs

4.6.1 A large Cherry Laurel bush is present in the south-eastern corner of the site (7).

4.7 Other habitats

4.7.1 Other habitats present include a disused prefabricated home and associated hardstanding with gravel to the south (1, 2), and a timber panel fence which encloses the

site (9). A pile of old fence panels overgrown by Bramble is also present adjacent to the eastern side of the disused home (8).

5 PROTECTED AND NOTABLE SPECIES

5.1 Bats

- 5.1.1 All UK bat species are protected as 'European Protected Species' (EPSs) under the 2019 Conservation of Habitats and Species (Amendment) (EU Exit) Regulations. In relation to EPSs, the 2019 Regulations make it an offence to:
 - Deliberately capture, injure or kill any wild animal of an EPS;
 - Deliberately disturb wild animals of any such species, in particular any disturbance which is likely to: (i) impair their ability to survive, to breed or reproduce, or to rear or nurture their young; or to hibernate or migrate; (ii) affect significantly the local distribution or abundance of the species to which they belong;
 - Damage or destroy a breeding site or resting place of such an animal; and
 - To (a) be in possession of, or to control; (b) to transport any live or dead animal or any part of an animal; (c) to sell or exchange or (d) offer for sale or exchange any live or dead animal or part of an animal of an EPS.
- 5.1.2 In addition, all UK bats are protected under the 1981 Wildlife and Countryside Act (as amended). All species are listed on Schedule 5 of the Act and are subject to the provisions of Sections 9.4b and 9.4c, which make it an offence to:
 - Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection; and
 - Intentionally or recklessly obstruct access to any structure or place used for shelter or protection by a bat.
- 5.1.3 If works are planned that are likely to constitute an offence under the current legislation, then works should be carried out under an appropriate Natural England licence.
- 5.1.4 Seven species of bat (Barbastelle, Bechstein's, Noctule, Soprano Pipistrelle, Brown Longeared, Greater Horseshoe and Lesser Horseshoe) are included as Species of Principal Importance identified under Section 41 of the 2006 NERC Act. Section 40 of the Act requires the planning authority to regard these species as a material consideration in the planning process.

Phase 1 bat scoping survey

- 5.1.5 All buildings and trees within and adjacent to the site were inspected during the phase 1 bat scoping survey.
- 5.1.6 All trees within and adjacent to the site were assessed as having negligible potential to support roosting bats.

5.1.7 The results of the phase 1 building survey are summarised in *Table 1* below and building locations are shown in *Appendix C*.

Building	Description	Findings	Bat roost potential
B1 (Photos 1 and 2)	Disused prefabricated home on brick footings. The building is constructed of wood panels with rendered sections and a pitched tiled roof.	External: Bat access opportunities into the building include multiple gaps under roof and ridge tiles, and a large hole in the south-eastern corner of the pitched roof which provides a potential access route into an internal roof void. Internal: Access restrictions meant it was not possible to survey the building internally however a loft void at least 1ft high is understood to be present. No evidence of roosting bats was recorded.	' Moderate' bat roost potential

Table 1: Results of phase 1 building survey

Foraging and commuting habitat

5.1.8 The scrub habitat along the site boundaries and the mosaic of scrub and grassland within the site provide potential commuting routes and foraging habitats for bats. However, the extent of habitat suitable present is very limited in size and similar foraging and commuting opportunities are abundant in the wider area. It is therefore unlikely that the site is important for foraging or commuting bats in a local context.

5.2 Badgers

- 5.2.1 Badgers and their setts are protected under the 1992 Protection of Badgers Act. Unless permitted under a licence issued by Natural England, this makes it an offence to:
 - Kill, injure or capture a Badger;
 - Damage, destroy or obstruct access to a Badger sett; and
 - Disturb Badgers while they are occupying a sett.

Badger survey

- 5.2.2 No Badger setts or any other evidence of Badger activity (e.g. paths, latrines or foraging signs) were recorded within or adjacent to the site.
- 5.2.3 The scrub and grassland habitats at the site provide limited areas of low quality foraging habitat for Badgers. Similar and higher quality foraging habitats are abundant within the surrounding area however and it is highly unlikely that the site is of importance to the local Badger population.

5.3 Dormouse

5.3.1 The Dormouse is protected through its inclusion on Schedule 5 of the 1981 Wildlife and Countryside Act (see *Section 5.1.2*) and is an EPS under the 2019 Conservation of

Habitats and Species (Amendment) (EU Exit) Regulations (see *Section 5.1.1*). It is also a Species of Principal Importance identified under Section 41 of the 2006 NERC Act.

5.3.2 The scrub patches on the west and eastern boundaries of the site are suitable for use by Dormice, however they are very limited in extent and have little connectivity with other habitats suitable for Dormice in the wider area. Furthermore, a full Dormouse nest-tube survey carried out by HDA in 2012 at the site and the wider Warfield Park estate (HDA, 2015a) recorded no Dormice or evidence of Dormice is highly unlikely that Dormice have colonised the site in the intervening period. In addition, the desk study identified no records of Dormice within 2km of the site. It is therefore considered highly unlikely that Dormice are present within the site.

5.4 Otter and Water Vole

- 5.4.1 The Otter is protected through its inclusion on Schedule 5 of the 1981 Wildlife and Countryside Act (see Section 5.1.2) and is an EPS under the 2019 Conservation of Habitats and Species (Amendment) (EU Exit) Regulations (see Section 5.1.1).
- 5.4.2 The Water Vole is protected through its inclusion on Schedule 5 of the 1981 Wildlife and Countryside Act (as amended). Unless permitted under a licence issued by Natural England this makes it an offence to:
 - Intentionally or recklessly kill, injure or take Water Voles;
 - Possess or control live or dead specimens or anything derived from a Water Vole;
 - Intentionally or recklessly damage, destroy or obstruct access to any structure or place which Water Voles use for shelter or protection; and
 - Intentionally or recklessly disturb Water Voles while they are using such a place.
- 5.4.3 Otter and Water Vole are also Species of Principal Importance identified under Section 41 of the 2006 NERC Act.
- 5.4.4 No waterbodies suitable for Otters or Water Voles are located within or adjacent to the site, and it is considered highly unlikely that either species are present at the site.

5.5 Birds

5.5.1 All breeding birds are afforded a basic level of protection under the 1981 Wildlife and Countryside Act (as amended) which protects active nest sites during the breeding season. The trees and scrub within and adjacent to the site offer nesting opportunities for a number of bird species, and it would be expected that the site supports a small number of breeding birds typical of garden and woodland edge habitats. 5.5.2 Due to the sites small size, however, and the abundance of similar and better quality habitat in the surrounding area, the site as a whole is unlikely to be of local importance for this group. Notwithstanding this, the legislation afforded to all birds under the Wildlife and Countryside Act 1981 (as amended) (i.e. protection whilst nesting) should be considered and this is discussed further in *Section 8* below.

5.6 Reptiles

- 5.6.1 All native reptiles are protected against killing and injuring under the 1981 Wildlife and Countryside Act (as amended) and listed as Species of Principal Importance identified under Section 41 of the 2006 NERC Act. Due to their rarity, Sand Lizards and Smooth Snakes have additional protection, although these species have very specific habitat requirements and are generally restricted to certain heathland and sand dune sites.
- 5.6.2 The scrub edge and rough grassland habitats at the site provide limited areas of suitable habitat for common and widespread reptile species such as Grass Snake, Slow-worm and Common Lizard. Previous surveys of the Warfield Park estate and its surrounds carried out by HDA in 2012 recorded the presence of Grass Snake and Slow-worm (HDA, 2015a/b).

5.7 Great Crested Newts

- 5.7.1 The Great Crested Newt is protected through its inclusion on Schedule 5 of the 1981 Wildlife and Countryside Act (see Section 5.1.2) and is an EPS under the 2019 Conservation of Habitats and Species (Amendment) (EU Exit) Regulations (see Section 5.1.1). Great Crested Newts are also a Species of Principal Importance identified under Section 41 of the 2006 NERC Act.
- 5.7.2 There are no waterbodies within the site that could provide suitable breeding habitat for Great Crested Newts. The scrub and ruderal vegetation within the site may, however provide habitat for Great Crested Newts associated with off-site waterbodies during terrestrial phases. A Great Crested Newt survey of the wider Warfield Park estate was carried out in 2012 (HDA, 2015b) and updated in 2016. The closest record of the species, either from the survey or desk study records, is from a distance of over 600m from the site. This is well beyond the typical 250m maximum routine migratory distance of Great Crested Newts during terrestrial phases (Cresswell and Whitworth, 2004) and it is considered highly unlikely that this species is present at the site during terrestrial phases.

5.8 Invertebrates

5.8.1 Habitats of interest for invertebrates are found across the site in the form of semiimproved grassland, woodland and scrub vegetation. However due to the small size of the site and the abundance of similar and higher quality habitat in the wider area, these are unlikely to be of significant interest for this group in a local context.

5.9 Plants

5.9.1 No protected or notable plant species were recorded within the site during the extended Phase 1 habitat survey and the majority of the site developed land, scrub and speciespoor semi-improved grassland habitats which are unlikely to support protected and notable plant species

6 NATURE CONSERVATION EVALUATION

6.1 The habitats within and adjacent to the site have been assessed against the findings of the Phase 1 habitat survey with consideration given to the criteria summarised in *Appendix E* of this report (Ratcliffe, 1977; CIEEM, 2018). A summary of the site habitat evaluation is given in *Table 2* below. Numbers in brackets refer to target notes.

Value	Habitats present
International	None
National	None
Regional	None
County	None
District	None
Local	 High: None Moderate: None Low: Mosaic of rough species poor semi-improved grassland, scrub, tall ruderals and short perennial and ephemeral vegetation [in combination] (2,3,4,5,6).
Site/negligible	All other habitats recorded

Table	2 :	Site	habitat	evaluation
-------	------------	------	---------	------------

- 6.2 There are no habitats of International, National, Regional, County or District nature conservation value within or adjacent to the site.
- 6.3 The habitats of highest nature conservation interest located within the site itself are the rough species-poor semi-improved grassland, scrub, tall ruderals and short perennial and ephemeral vegetation, which are considered in combination to be of **low local value** for nature conservation. Although these habitats are not exceptionally diverse, are recently established and are relatively limited in extent, they do provide potential habitat for a range of species, appreciably enhance the nature conservation interest of the site and in combination contribute to a wider network of habitat linkages facilitating the movement of wildlife around the site and surrounding countryside.

- 6.4 The remaining habitats within the site, namely the hardstanding, building and introduced shrubs, have been assessed as being of less than local/ negligible value in their own right.
- 6.5 Consideration should also be given to off-site areas of nature conservation interest that could be potentially affected by development proposals for the site. This is discussed further in *Section 8* below.

7 ADDITIONAL DATA REQUIREMENTS

7.1 In light of the findings of the ecological desk study and extended Phase 1 habitat survey described above additional survey work has been recommended in support of a planning application where significant populations of notable species and/or species protected under the 1981 Wildlife and Countryside Act (as amended) and 2019 Conservation of Habitats and Species (Amendment) (EU Exit) Regulations were identified as possibly occurring within the site, and that could potentially be impacted by development proposals. The further survey work being undertaken is described below, this has been instructed and will be the subject of a separate report.

7.2 European protected species

Bats: The building within the site provides 'moderate' potential to support roosting bats. As the building will be lost to the proposed development a series of Phase 2 emergence/re-entry surveys of the building have been instructed in accordance with current best practice guidelines (BCT, 2016) to establish the presence or absence of roosting bats and any mitigation and licensing requirements for the proposed development.

7.3 Consideration of other species

No further surveys for birds or reptiles are recommended in support of an application for the development of the site. Although breeding birds are likely to occur at the site, and there is potential for very low numbers of common and widespread species of reptile to occur, it is unlikely that locally significant populations would be affected by the proposed development. Nature conservation legislation relating to birds and reptiles would, however still apply.

7.4 Previous survey work for Dormice and Great Crested Newts carried out at the Warfield Park estate, of which the site forms a part (HDA, 2015a/b), indicated likely absence of both species from the site. In light of these surveys and the results of the desk study described above, additional surveys for these species are not proposed in support of the current application. Notwithstanding this, measures to maintain opportunities for these species groups within the site and its surrounds are provided in *Section 8* below.

8 **RECOMMENDATIONS**

8.1 This section provides a review of the possible implications of development proposals on features of ecological interest at the site and the surrounding area and outlines recommended measures for the avoidance and mitigation of potential effects. In addition, opportunities are identified by which development of the site could enhance its current value for species of conservation concern in accordance with planning policy and the 2006 NERC Act.

8.2 Designated areas

Thames Basin Heaths SPA

- 8.2.1 The area of highest nature conservation value associated with the site is the Thames Basin Heaths SPA which is located approximately 4km to the south of the site at its closest point. The SPA is protected under the 2019 Conservation of Habitats and Species (Amendment) (EU Exit) Regulations. This requires decision-making authorities to consider the potential effects of proposed development in the vicinity of the SPA both alone and in combination with other plans and projects.
- 8.2.2 Any development proposals for the site will therefore need to consider potential effects on the ground-nesting bird populations for which the SPA is designated and ensure that there are no overall adverse effects as a result of development by implementing avoidance and mitigation measures as appropriate. A full description of the constraints of the Thames Basin Heaths SPA to development and required approach to mitigation is provided in the *Thames Basin Heaths Special Protection Area Supplementary Planning Document* (BFC, 2018).
- 8.2.3 The proposed development for replacement of an existing dwelling is not expected to result in a net increase in dwellings within the vicinity of the SPA and as such is extremely unlikely to result in significant impacts on the integrity of the SPA. No mitigation measures relating to effects on the SPA are therefore expected to be required in relation to the proposed development.

Other sites

8.2.4 No other statutory or non-statutory sites are expected to be adversely affected by the proposed development in the absence of mitigation or avoidance measures, either alone or in combination with other plans or projects. This is due to a combination of the nature and scale of the proposed development, the distance between the site and the designated areas, the limited ecological connectivity with the site, the implementation of

the avoidance and mitigation measures described above, and/or the character habitats and features for which the areas are designated.

8.3 Habitats

- 8.3.1 Current knowledge suggests that there are no habitats of International, National, Regional, County or District nature conservation value within the site.
- 8.3.2 The features of highest nature conservation interest within the site are the rough speciespoor semi-improved grassland, scrub, tall ruderals and short perennial and ephemeral vegetation. These habitats are recently established and limited in extent and as such are considered in combination to be of no more than low local value for nature conservation. Notwithstanding this, these features appreciably enrich the nature conservation interest of the site and its immediate surroundings, provide habitat for a range of species and contribute to a network of habitats facilitating the movement of wildlife across the site and the wider area. Where possible, development proposals should seek to retain these habitats. Where loss is unavoidable, the site landscape strategy should seek to maintain current levels of habitat connectivity and provide new opportunities for wildlife. This could be achieved through use of species-rich hedgerow/ scrub planting and use of species-rich grassland seed mixes.
- 8.3.3 Retained trees and scrub should be protected during the course of development, with works carried out in accordance with 'BS5837 Trees in relation to construction' unless otherwise agreed with a suitably qualified arboriculturalist.
- 8.3.4 Opportunities for nocturnal wildlife within areas of retained and newly created habitat within and adjacent to the site should also be maintained during the construction and operational phases of the proposed development through sensitive lighting design. Where lighting is proposed in the vicinity of these areas, this should use the minimum lighting levels required for public safety and be designed to avoid light spill through use of measures such as low level, hooded and directional lighting as appropriate.
- 8.3.5 Although the habitats present within the site are of limited nature conservation interest in their own right, some provide opportunities for protected species such as bats, reptiles, and nesting birds. This is discussed further in *Section 8.4* below.
- 8.3.6 Development proposals should seek to enhance the habitat resource of the site to provide new opportunities for wildlife in accordance with national and local planning policy and guidance (NPPF, 2019; ODPM, 2005) and the 2006 NERC Act. Opportunities arising from development of the site for the enhancement of retained habitats and creation of new habitats are identified in *Section 8.5*.

8.4 Protected and notable species Bats

- 8.4.1 As discussed in *Section 7* above, further surveys to determine use of the building within the site by roosting bats have been instructed and these will be subject of a separate report.
- 8.4.2 The scrub habitat along the site boundaries and the mosaic of scrub and grassland within the site provide suitable habitat for foraging and commuting bats. However, due to their limited extent, it is unlikely that the site is of importance to foraging and commuting bats at the local level. Notwithstanding this, in addition to the habitat retention/creation measures described above, it is recommended that opportunities for foraging and commuting bats are maintained within the site following development through the use of native species, pollen-rich and nectar-rich plants, the use of native species-rich hedgerows and tree planting within the site and along site boundaries.
- 8.4.3 It is also recommended that the lighting scheme for the site be designed to minimise light spill onto the site boundaries and any retained and newly created foraging and commuting habitat within and adjacent to the site in order to maintain the suitability of these areas for bats and other nocturnal wildlife throughout the construction and operational phases of the proposed development. In accordance with the Bat Conservation Trust and Institute of Lighting Professionals guidance (BCT and ILP, 2018) this could be achieved through employment of a selection of the following measures in the vicinity of retained/newly created areas of suitable foraging habitat such as hedgerows and scattered trees, and in the vicinity of retained trees and buildings providing opportunities for roosting bats:
 - Use of only the minimum amount of light required for safety and amenity, and avoidance of upward reflected light.
 - Avoidance of bare bulbs or upward-pointing lights. The spread of light should be kept near to or below the horizontal.
 - Use of 'warm' narrow spectrum bulbs (e.g. 2700k) and low UV emitting bulb types.
 - Avoidance of light-spill into adjacent areas through luminaire design or with accessories, such as hoods, cowls, louvres and shields to direct the light.
 - Minimising the height of lighting columns.
 - For pedestrian lighting, use of low level lighting that is as directional as possible and below 3 lux at ground level.
 - Where necessary, use of embedded road lights to illuminate roadways and light only high-risk stretches of roads such as crossings and merges.

 Limiting the times that lights are on to provide some dark periods for wildlife through use of timers and/or use automatic dimmers to reduce lighting outside times of peak use.

Badgers

- 8.4.4 Although no evidence of Badgers was recorded during the field survey, habitats at the site provide limited areas of potential sett-building and foraging habitat for this species. Badgers are however highly mobile animals and new setts may be created and old setts abandoned over short periods of time, and it is therefore recommended that the site is resurveyed prior to commencement of development works to ensure that the status of Badgers has not changed.
- 8.4.5 Although the site is unlikely to be of local importance for foraging Badgers due to its small size and the availability of other suitable habitats in the wider area, it is recommended that construction activities take into account the possible use of the site by Badgers for occasional foraging. To avoid entrapment of Badgers and other mammals foraging and moving around the site during the construction phase, any steep sided holes left open overnight during the site preparation, earthworks and construction should be equipped with a mammal ladder (a reinforced plywood board >60cm wide set at an angle of no greater than 30° to the base of the pit) and temporarily open pipes with a diameter of >150mm plugged to prevent entrapment.

Birds

8.4.6 The site is considered unlikely to support an important assemblage of breeding birds, and no further survey for this group is recommended. Notwithstanding this, removal of vegetation should avoid the bird breeding season (generally taken as March to August inclusive), as wild birds, their nests and eggs are protected under the 1981 Wildlife and Countryside Act (as amended). In the event that vegetation clearance is required during this period, a search for nesting birds should be undertaken by a suitably qualified ecologist immediately prior to vegetation removal. In the event that breeding birds are discovered, sufficient habitat will need to be retained to ensure birds are not disturbed until nesting activity has been completed and the nest vacated.

Reptiles

8.4.7 A full reptile survey of the site is not proposed due to the potential for only very small numbers of reptiles to be present and the existence of contiguous suitable reptile habitat adjacent to the site. In view of this it is recommended that a precautionary approach is taken to clearance of any suitable reptile habitat affected during construction in order to ensure that reasonable measures to avoid contravention of legislation protecting common and widespread reptile species (i.e. protection against injury and killing) are employed.

This would involve the displacement of any reptiles present into areas of contiguous habitat away from construction works using the following procedure:

- Vegetation within affected areas should be removed from the centre outwards using hand-held tools, where appropriate, allowing any reptiles present to escape to contiguous areas of retained habitat;
- Where any scrub or tall ruderal vegetation is to be cleared, this should be carried out in two phases. The first cut should be to >100mm to decrease its suitability for reptiles and encourage any reptiles present to move to retained areas of habitat. Where the potential for reptiles to be present remains, following a minimum period of seven days, a second cut to ground level should be carried out in order to render the habitat unsuitable;
- Cleared areas should be maintained to prevent re-colonisation prior to works commencing; and
- Potential hibernacula or refugia such as log and rubble piles should be removed by hand.
- 8.4.8 Any ground level clearance works or removal of refugia or potential hibernacula should be carried out during suitable climatic conditions at a time of year when reptiles are active (generally mid-March to early-October inclusive) under the supervision of an appropriately qualified ecologist who would relocate any reptiles encountered to an area of suitable retained habitat elsewhere within the site.

8.5 Opportunities for enhancement

- 8.5.1 In addition to the recommendations given to maintain the habitat resource of the site and prevent conflict with any protected species that might be present, development proposals should seek to provide new and enhanced opportunities for wildlife in accordance with national and local planning policy and guidance (NPPF, 2019; ODPM, 2005). A selection of measures is given below that could potentially increase the nature conservation interest of the site and provide enhanced habitat for protected and notable species:
 - Establishment of native species-rich scrub and tree planting;
 - Provision of log and brash piles within semi-natural areas of planting to provide habitat for invertebrates, amphibians and reptiles;
 - Use of nectar/pollen-rich and fruit and nut-producing species within the formal landscape scheme to benefit species including birds, invertebrates, bats and foraging Badgers;
 - Prioritise the use of native species typical of the local area in landscape planting where appropriate to do so. Where possible, these should be sourced from a stock of local provenance;
 - Maintain opportunities for movement of wildlife around the site through the strengthening of existing or provision of new corridors of semi-natural habitat;

- Provision of bird boxes and/or bat boxes on new park homes; and
- Provision of gaps in new or existing boundary fencing to allow movement of wildlife such as Hedgehogs.

9 CONCLUSION

- 9.1 Subject to the implementation of the recommended measures for habitat retention, creation and enhancement and to maintain the integrity of the Thames Basin Heaths SPA, no reduction in the ecological interest of the site is likely to arise as a result of the proposed development.
- 9.2 It is therefore concluded that beyond the normal requirements to maintain the habitat resource of the site and avoid impacts on protected species and designated areas, there appear to be no overriding nature conservation constraints that would preclude the proposed development of the site.

10 REFERENCES

Baker H, Stroud D, Aebsicher J, Cranswick Gregory R, McSorley C, Noble D, Rehhisch M. (2006) *Population estimates of birds in Great Britain and the United Kingdom*. British Birds 99. January 2006. 25-44.

Bat Conservation Trust (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines.* Bat Conservation Trust, London.

Bat Conservation Trust and Institute for Lighting Professionals (2018) Bats and artificial lighting in the UK; Bats and the Built Environment series. Institute for Lighting Professionals, Rugby.

BFC (2018) Thames Basin Heaths Special Protection Area Supplementary Planning Document. Bracknell Forest Council, Bracknell.

Bracknell Forest Borough Council (2002) *Bracknell Forest Local Plan 2002*. Bracknell Forest Council, Bracknell.

BRIG (2011) *UK Biodiversity Action Plan*. UK Biodiversity Partnership. Available from: <u>http://jncc.defra.gov.uk/page-5155</u>

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: *Terrestrial, Freshwater, Coastal and Marine.* Chartered Institute of Ecology and Environmental Management, Winchester.

Department for Communities & Local Government, (2021) National Planning Policy Framework: Legislation and policy, Good practice and guidance. Sited on https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_ data/file/1005759/NPPF_July_2021.pdf

Harris S, Cresswell P and Jefferies D (1991) Surveying Badgers. The Mammal Society, Bristol.

HDA (2015a) *Ecological Summary Report – Appendix E*. Hankinson Duckett Associates, Wallingford.

HDA (2015b) *Ecological Summary Report – Appendix H.* Hankinson Duckett Associates, Wallingford.

Joint Nature Conservation Committee (2016) Handbook for Phase 1 Habitat survey: a technique for environmental audit. JNCC, Peterborough.

MAGIC (2021) Interactive Map. Available from: http://magic.defra.gov.uk/MagicMap.aspx [Accessed November 2021].

ODPM (2005) Government Circular: Biodiversity and Geological Conservation – Statutory obligations and their impact within the planning system. Office of the Deputy Prime Minister, August 2005.

Ratcliffe, D.A. (ed.) (1977) A Nature Conservation Review, Vols. 1 and 2. Cambridge University Press, Cambridge.

Royal Society for the Protection of Birds (2015) *Birds of Conservation Concern 4*. RSPB, Bedfordshire.

Spellerberg, I.F. (1992) *Evaluation and Assessment for Conservation.* Chapman & Hall, London.

Stace, C. (2019). *New Flora of the British Isles (Fourth edition)*. Cambridge University Press, Cambridge.

UKBP (2007) *UK Biodiversity Action Plan.* UK Biodiversity Partnership. Available from: http://jncc.defra.gov.uk/page-5155.

Usher, M.B. (ed.) (1986) Wildlife Conservation Evaluation. Chapman & Hall, London.

HDA Document Control and Quality Assurance Record

Project Title:	Warfield Park Ecology: 56A Forest Way
Project Reference:	554.2
Document Title:	Ecological Appraisal
Commissioning Party:	Warfield Homes Ltd.

Issue	Description	Date of Issue	Signed
1	Ecological Appraisal	December 2021	A.Su

	Personnel	Position
Author	Anna Potter	Ecologist
Approved for issue	Anna Senior MCIEEM	Principal Ecologist

© Hankinson Duckett Associates. All rights reserved

No part of this report may be copied or reproduced by any means without prior written permission from Hankinson Duckett Associates. If you have received this report in error, please destroy all copies in your possession or control and notify Hankinson Duckett Associates.

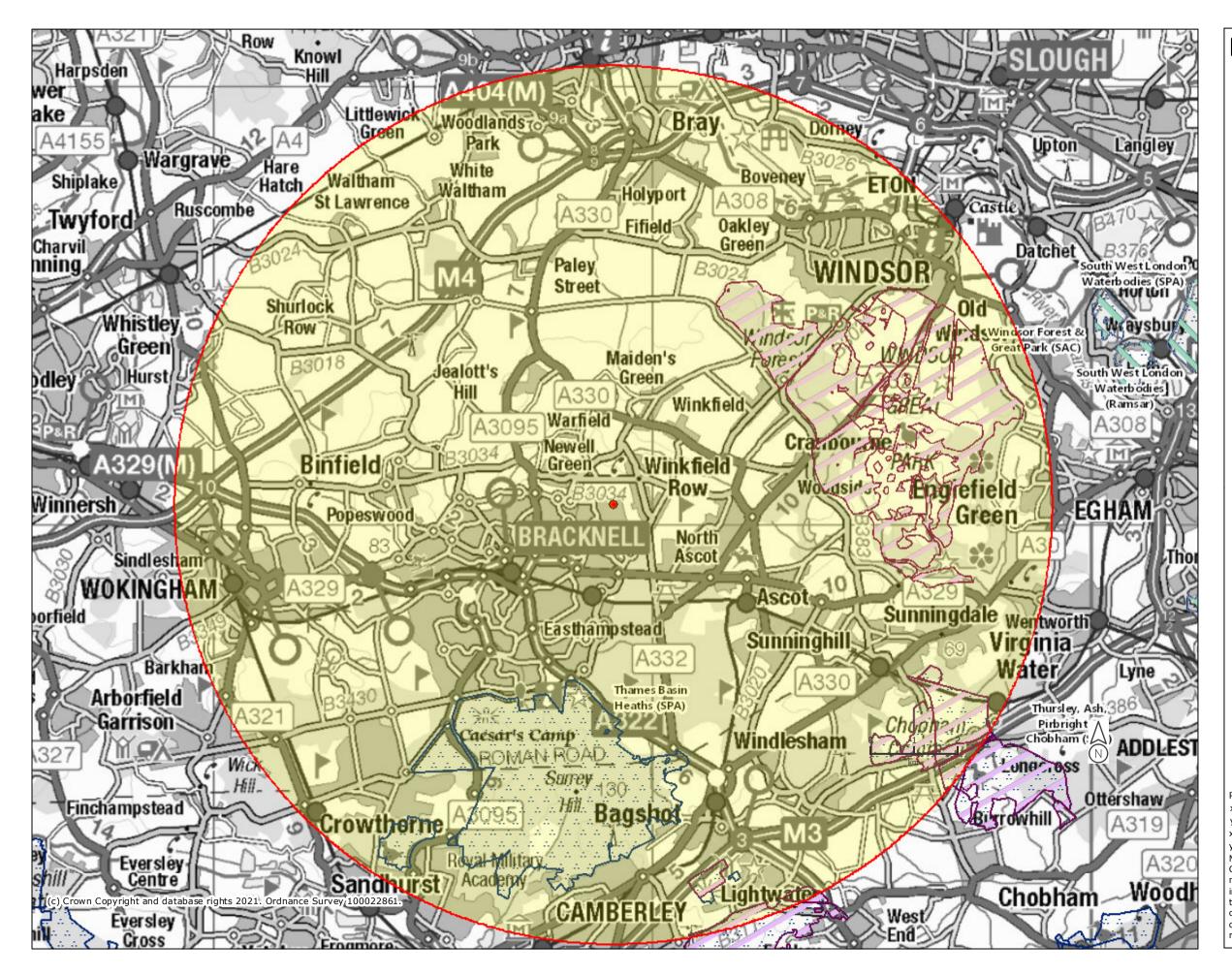
This report has been prepared for the exclusive use of the commissioning party and unless otherwise agreed in writing by Hankinson Duckett Associates no other party may use, make use of or rely on the contents of the report. No liability is accepted by Hankinson Duckett Associates for any use of this report, other than for the purposes for which it was originally prepared and provided.

Opinions and information provided in the report are on the basis of Hankinson Duckett Associates using due skill, care and diligence in the preparation of the same and no explicit warranty is provided as to their accuracy. It should be noted and it is expressly stated that no independent verification of any of the documents or information supplied to Hankinson Duckett Associates has been made.

APPENDIX A

Desk study results

10km Internationally Designated areas

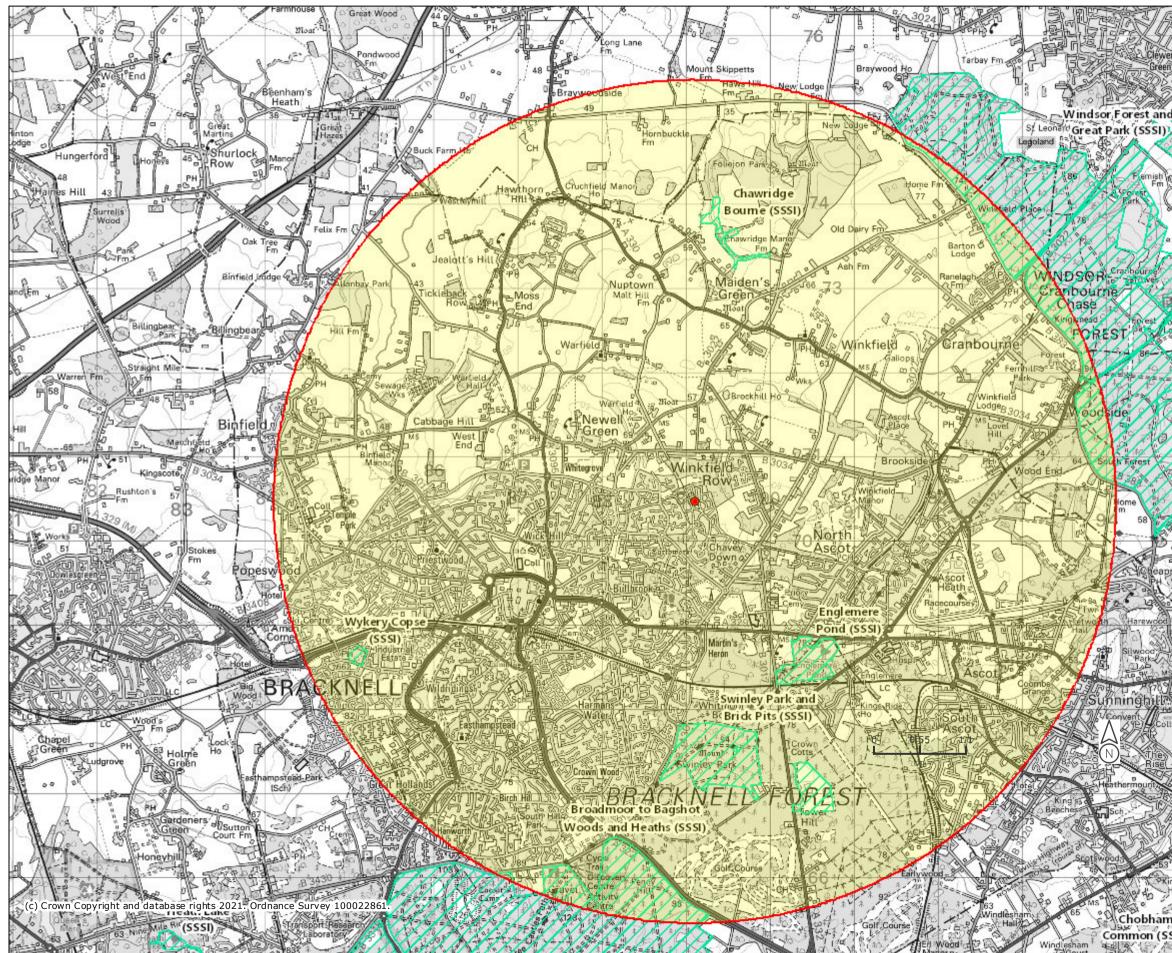


Legend

- Ramsar Sites (England)
- (England) Special Areas of Conservation
- Possible Special Areas of Conservation (England)
- Special Protection Areas (England)
- Potential Special Protection Areas (England)

nust not be reproduced without their permission. Som nformation in MAGIC is a snapshot of the informatio					
max = 504600 km max = 182000 Map produced by MAGIC on 21 October, 2021. Copyright resides with the data suppliers and the ma nust not be reproduced without their permission. Som nformation in MAGIC is a snapshot of the informatio					
wmax = 182000 Map produced by MAGIC on 21 October, 2021. Copyright resides with the data suppliers and the ma nust not be reproduced without their permission. Som nformation in MAGIC is a snapshot of the informatio					
<pre>/max = 182000 Map produced by MAGIC on 21 October, 2021. Copyright resides with the data suppliers and the manust not be reproduced without their permission. Som nformation in MAGIC is a snapshot of the information</pre>					
Copyright resides with the data suppliers and the manust not be reproduced without their permission. Som nformation in MAGIC is a snapshot of the information					
5 5 5	Map produced by MAGIC on 21 October, 2021. Copyright resides with the data suppliers and the map nust not be reproduced without their permission. Some nformation in MAGIC is a snapshot of the information hat is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative				

5km Nationally designated areas



-57	15/7
E.	EJE*
657	757
1 5717	550
200	USCH
	US
6//18	ALG.
Sa	2
S	20
d	
20	
d	8
9.3	50
12	1 4
00	
55	1000
55	
1	3
	υ.,
	1
1	11
1	1
	2
- 1	1
- 1	1
19	14
10 8	11
ale.	60
18	
111	1
	61
/ A & A & A	15
orest	1
332	-
aler.	1.44
0°0	12
X	1
1	- 14
100	HE &
9	1.50
2	S 200
P	100
1	i?
M	KA.
11	192
1	1
14	1-7
R)	200
<u> </u>	2 mil
XX	CALL.
<u> </u>	5
2	5
2	X
9	S.
1	
1	
all alles	

Legend

National Nature Reserves (England)

(-
S
/F

ites of Special Scientific Interest (England)

Projection = OSGB36		
xmin = 479600	0.0	35 1.7
ymin = 165100	L 1	
xmax = 496600	kr	n
ymax = 176400		
Map produced by MAG		
Copyright resides with		
must not be reproduc		
information in MAGIC		
that is being maintai		, , ,
originating organisatio		
details as information	,	ve or representative
rather than definitive -	at this stage.	

2km Locally Designated Areas and Ancient Woodland



Legend

Local Nature Reserves (England)

Ancient Woodland (England)

Ancient and Semi-Natural Woodland

Ancient Replanted Woodland

Projection = OSGB36		
xmin = 485400	0 0.3	5 0.7
ymin = 168400	i i	
xmax = 492200	km	
ymax = 172900		
Map produced by MAG	IC on 21 October,	, 2021.
Copyright resides witl		
must not be reproduc		
information in MAGIC		
that is being maintai		, , ,
originating organisatio		
details as information	,	e or representative
rather than definitive -	at this stage.	

2km Woodland



V	1
	14-
777	1
	0
7	
	1
140	-
11-	-1
b.	7
111	11
	11
	1
	10
	W
	111
	111
-	11
	H.
-	
1	7
	12
	1
	12
	6
	1
	1
)/	
	-
	200
1	
11	-
-	-
	-
1	
A	sco
Stud	Fa
	5
	C.
Ch.	师
1.0	
chs 8	3
	1
	830
	4%
	0%
1097 A	CD.
2.59	120
	品
511	D'A
120	21
NOF	LI.
Asc	OT:
AND	200
	1
	R
	12
102	
1.20	
150	
	计
6.97	2.12
	-
	2015
	C
1-	1
i la	A
102	8.2
0	122
10	500
1	- April
- 55	

Legend

Ancient Woodland (England)

Ancient and Semi-Natural Woodland



Ancient Replanted Woodland

Priority Habitat Inventory -Deciduous Woodland (England)

Projection = OSGB36		
xmin = 485600	0 0.3	0.6
ymin = 168300	L I	
kmax = 491800	km	
/max = 172800		
Map produced by MAG	IC on 17 Novembe	r, 2021.
Copyright resides with		
nust not be reproduc		
nformation in MAGIC		
hat is being maintair	,	
priginating organisatio		
details as information r	,	or representative
ather than definitive a	at this stage.	

EC Directive 79/409 on the Conservation of Wild Birds Special Protection Area (SPA)

Name: Thames Basin Heaths

Unitary Authority/County: Bracknell Forest; Hampshire; Surrey; Windsor and Maidenhead.

Site description: The Thames Basin Heaths SPA is a composite site that is located across the counties of Surrey, Hampshire and Berkshire in southern England. It encompasses all or parts of Ash to Brookwood Heaths Site of Special Scientific Interest (SSSI), Bourley and Long Valley SSSI, Bramshill SSSI, Broadmoor to Bagshot Woods and Heaths SSSI, Castle Bottom to Yateley and Hawley Commons SSSI, Chobham Common SSSI, Colony Bog and Bagshot Heaths SSSI, Eelmoor Marsh SSSI, Hazeley Heath SSSI, Horsell Common SSSI, Ockham and Wisley Commons SSSI, Sandhurst to Owlsmoor Bogs and Heaths SSSI and Whitmoor Common SSSI.

The open heathland habitats overlie sand and gravel sediments which give rise to sandy or peaty acidic soils, supporting dry heathy vegetation on well-drained slopes, wet heath on low-lying shallow slopes and bogs in valleys. The site consists of tracts of heathland, scrub and woodland, once almost continuous, but now fragmented into separate blocks by roads, urban development and farmland. Less open habitats of scrub, acidic woodland and conifer plantations dominate, within which are scattered areas of open heath and mire. The site supports important breeding populations of a number of birds of lowland heathland, especially nightjar *Caprimulgus europaeus* and woodlark *Lullula arborea*, both of which nest on the ground, often at the woodland/heathland edge, and Dartford warbler *Sylvia undata*, which often nests in gorse *Ulex* sp. Scattered trees and scrub are used for roosting.

Together with the nearby Ashdown Forest and Wealden Heaths SPAs, the Thames Basin Heaths form part of a complex of heathlands in southern England that support important breeding bird populations.

Size of SPA: The SPA covers an area of 8274.72 ha.

Qualifying species:

The site qualifies under **article 4.1** of the Directive (79/409/EEC) as it is used regularly by 1% or more of the Great Britain populations of the following species listed in Annex I in any season:

Annex 1 species	Count and season	Period	% of GB population
Nightjar Caprimulgus europaeus	264 churring males –	1998/99	7.8%
	breeding		
Woodlark Lullula arborea	149 pairs – breeding	1997	9.9%
Dartford warbler Sylvia undata	445 pairs – breeding	1999	27.8%

Non-qualifying species of interest: Hen harrier *Circus cyaneus*, merlin *Falco columbarius*, short-eared owl *Asio flammeus* and kingfisher *Alcedo atthis* (all Annex I species) occur in non-breeding numbers of less than European importance (less than 1% of the GB population).

Status of SPA:

Thames Basin Heaths was classified as a Special Protection Area on 9 March 2005.



NATURA 2000 – STANDARD DATA FORM

Special Areas of Conservation under the EC Habitats Directive (includes candidate SACs, Sites of Community Importance and designated SACs).

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information. The data form for this site has been generated from the Natura 2000 Database submitted to the European Commission on the following date:

22/12/2015

The information provided here, follows the officially agreed site information format for Natura 2000 sites, as set out in the <u>Official Journal of the European Union recording the</u> <u>Commission Implementing Decision of 11 July 2011</u> (2011/484/EU).

The Standard Data Forms are generated automatically for all of the UK's Natura 2000 sites using the European Environment Agency's Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA's Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

Further technical documentation may be found here <u>http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal</u>

As part of the December 2015 submission, several sections of the UK's previously published Standard Data Forms have been updated. For details of the approach taken by the UK in this submission please refer to the following document: <u>http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf</u>

More general information on Special Areas of Conservation (SACs) in the United Kingdom is available from the <u>SAC home page on the JNCC website</u>. This webpage also provides links to Standard Data Forms for all SACs in the UK.

Date form generated by the Joint Nature Conservation Committee 25 January 2016.



NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA), Proposed Sites for Community Importance (pSCI), Sites of Community Importance (SCI) and for Special Areas of Conservation (SAC)

SITE UK0012586

SITENAME Windsor Forest and Great Park

TABLE OF CONTENTS

- <u>1. SITE IDENTIFICATION</u>
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT

1. SITE IDENTIFICATION

1.1 Туре	1.2 Site code	Back to top
В	UK0012586	

1.3 Site name

Windsor Forest and Great Park			
1.4 First Compilation date	1.5 Update date		

1.6 Respondent:

Name/Organisation:	Joint Nature Conservat	tion Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY	
Email:		
Date site proposed a	as SCI:	1995-06
Date site confirmed	as SCI:	2004-12

 Date site designated as SAC:
 2005-04

 National legal reference of SAC designation:
 Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

2.1 Site-centre location [decimal degrees]:

Longitude -0.623333333	Latitude 51.43555556
2.2 Area [ha]:	2.3 Marine area [%]
1680.18	0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKJ2	Surrey, East and West Sussex
UKJ1	Berkshire, Buckinghamshire and Oxfordshire

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

3.1 Habitat types present on the site and assessment for them

Back to top

Annex I Habitat types			Site assessment						
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A B C D	A B C		
						Representativity	Relative Surface	Conservation	Global
9120			272.69		G	С	В	A	С
9190 6			621.67		G	A	В	А	A

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- Cover: decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

G	Code	Scientific Name	s	NP	т	Size		Unit	Cat.	D.qual.	A B C D	A B C		
						Min	Max				Рор.	Con.	lso.	Glo.
I	1079	<u>Limoniscus</u> <u>violaceus</u>			р				Ρ	DD	A	A	A	A
I	1083	<u>Lucanus</u> <u>cervus</u>			р				Ρ	DD	D			

- Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- S: in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see <u>reference portal</u>)
- Abundance categories (Cat.): C = common, R = rare, V = very rare, P = present to fill if data are deficient (DD) or in addition to population size information
- Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

4.1 General site character

Habitat class	% Cover
N19	95.0
N06	0.5
N09	4.5
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: acidic, clay, neutral, sand 2 Terrestrial: Geomorphology and landscape: lowland

4.2 Quality and importance

Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion) for which the area is considered to support a significant presence. Old acidophilous oak woods with Quercus robur on sandy plains for which this is one of only four known outstanding localities in the United Kingdom. Limoniscus violaceus for which this is one of only three known outstanding localities in the United Kingdom. which is known from 15 or fewer 10 x 10 km squares in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts					
Rank			inside/outside [i o b]		
Н	H04		В		
Н	101		В		
	I				

r				
Positive Impacts				
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i 0 b]	
Н	A02		I	
Н	A04		I	
Н	A06		I	

Н	B02	I	Н	B02	1
Н	K04	Ι			

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification, T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324 http://incc.defra.gov.uk/pdf/Natura2000 StandardDataForm UKApproach Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

5.1 Design	nation types at natio	onal and region	al level:		Back to top
Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

.

Back to top

6. SITE MANAGEMENT

6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

	Yes
	No, but in preparation
X	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the <u>official European Union guidelines for the</u> <u>Standard Data Form</u>. The relevant page is shown in the table below.

1.1 Site type

CODE	DESCRIPTION	PAGE NO
А	Designated Special Protection Area	53
В	SAC (includes candidates Special Areas of Conservation, Sites of Community Importance and designated SAC)	53
С	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
А	Excellent	57
В	Good	57
С	Significant	57
D	Non-significant presence	57

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
А	15%-100%	58
В	2%-15%	58
С	< 2%	58

3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
А	Excellent conservation	59
В	Good conservation	59
С	Average or reduced conservation	59

3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
А	Excellent value	59
В	Good value	59
С	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
А	15%-100%	62
В	2%-15%	62
С	< 2%	62
D	Non-significant population	62

3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
А	Excellent conservation	63
В	Good conservation	63
С	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
А	Population (almost) Isolated	63
В	Population not-isolated, but on margins of area of distribution	63
С	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
А	Excellent value	63
В	Good value	63
С	Significant value	63

3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
101	Invasive non-native species	65
102	Problematic native species	65
103	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
К03	Interspecific faunal relations	65
К04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67

NATURA 2000 – STANDARD DATA FORM

Special Areas of Conservation under the EC Habitats Directive (includes candidate SACs, Sites of Community Importance and designated SACs).

Each Natura 2000 site in the United Kingdom has its own Standard Data Form containing site-specific information. The data form for this site has been generated from the Natura 2000 Database submitted to the European Commission on the following date:

22/12/2015

The information provided here, follows the officially agreed site information format for Natura 2000 sites, as set out in the <u>Official Journal of the European Union recording the</u> <u>Commission Implementing Decision of 11 July 2011</u> (2011/484/EU).

The Standard Data Forms are generated automatically for all of the UK's Natura 2000 sites using the European Environment Agency's Natura 2000 software. The structure and format of these forms is exactly as produced by the EEA's Natura 2000 software (except for the addition of this coversheet and the end notes). The content matches exactly the data submitted to the European Commission.

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

Further technical documentation may be found here http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal

As part of the December 2015 submission, several sections of the UK's previously published Standard Data Forms have been updated. For details of the approach taken by the UK in this submission please refer to the following document: <u>http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf</u>

More general information on Special Areas of Conservation (SACs) in the United Kingdom is available from the <u>SAC home page on the JNCC website</u>. This webpage also provides links to Standard Data Forms for all SACs in the UK.

Date form generated by the Joint Nature Conservation Committee 25 January 2016.



NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA), Proposed Sites for Community Importance (pSCI), Sites of Community Importance (SCI) and for Special Areas of Conservation (SAC)

SITE UK0012793

SITENAME Thursley, Ash, Pirbright and Chobham

TABLE OF CONTENTS

- <u>1. SITE IDENTIFICATION</u>
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT

1. SITE IDENTIFICATION

1.1 Туре	1.2 Site code	Back to top
В	UK0012793	

1.3 Site name

Thursley, Ash, Pirbright and Chobham				
1.4 First Compilation date	1.5 Update date			

1.6 Respondent:

Name/Organisation:	Name/Organisation: Joint Nature Conservation Committee				
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY				
Email:					
Date site proposed a	as SCI:	1996-01			
Date site confirmed	as SCI:	2004-12			

 Date site designated as SAC:
 2005-04

 National legal reference of SAC designation:
 Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

2.1 Site-centre location [decimal degrees]:

Longitude -0.693055556	Latitude 51.16166667
2.2 Area [ha]:	2.3 Marine area [%]
5154.5	0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKJ2	Surrey, East and West Sussex

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

3.1 Habitat types present on the site and assessment for them

Annex I Habitat types Site assessment Cover Cave Data Code PF NP A|B|C|D A|B|C [ha] [number] quality Relative Conservation Global Representativity Surface 40108 Μ A С В 515.45 А 4030 3608.15 Μ A С А В 71500 5.15 G В С А A 91208 51.55 D Μ 91E0 Х D 51.55 Μ 8

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- NP: in case that a habitat type no longer exists in the site enter: x (optional)
- Cover: decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species			Population in the site				Site assessment							
G	Code	Scientific Name	S	NP	т	Size		Unit	Cat.	D.qual.	A B C D	A B C		
						Min	Max				Рор.	Con.	lso.	Glo.
A	1166	<u>Triturus</u> <u>cristatus</u>			р				Ρ	DD	D			

- Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- S: in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- NP: in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- Abundance categories (Cat.): C = common, R = rare, V = very rare, P = present to fill if data are deficient (DD) or in addition to population size information
- Data quality: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

4.1 General site character

Habitat class	% Cover
N08	75.0
N07	10.0
N17	10.0
N06	5.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: peat, acidic, sand, nutrient-poor 2 Terrestrial: Geomorphology and landscape: lowland

4.2 Quality and importance

Northern Atlantic wet heaths with Erica tetralix for which this is considered to be one of the best areas in the United Kingdom. European dry heaths for which this is considered to be one of the best areas in the United Kingdom. Depressions on peat substrates of the Rhynchosporion for which this is considered to be one of the best areas to be one of the best areas in the United best areas in t

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			Positive	mpacts		
Threats and	Pollution (optional)	inside/outside	Rank	Activities, management	Pollution (optional)	inside/outside

Rank	pressures [code]	[code]	[i o b]
Н	G05		l
Н	A04		l
Н	H04		В
Н	J02		В
Н	K02		l

	[code]	[code]	[i o b]
Н	D05		I
Н	A04		I
Н	B02		I
Н	A02		I

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,

T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://incc.defra.gov.uk/pdf/Natura2000 StandardDataForm UKApproach Dec2015.pdf

http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324

5. SITE PROTECTION STATUS (optional)

5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0	UK01	16.0		

6. SITE MANAGEMENT

6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

	Yes
	No, but in preparation
X	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

Back to top

EXPLANATION OF CODES USED IN THE NATURA 2000 STANDARD DATA FORMS

The codes in the table below are also explained in the <u>official European Union guidelines for the</u> <u>Standard Data Form</u>. The relevant page is shown in the table below.

1.1 Site type

CODE	DESCRIPTION	PAGE NO
А	Designated Special Protection Area	53
В	SAC (includes candidates Special Areas of Conservation, Sites of Community Importance and designated SAC)	53
С	SAC area the same as SPA. Note in the UK Natura 2000 submission this is only used for Gibraltar	53

3.1 Habitat representativity

CODE	DESCRIPTION	PAGE NO
А	Excellent	57
В	Good	57
С	Significant	57
D	Non-significant presence	57

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
А	15%-100%	58
В	2%-15%	58
С	< 2%	58

3.1 Conservation status habitat

CODE	DESCRIPTION	PAGE NO
А	Excellent conservation	59
В	Good conservation	59
С	Average or reduced conservation	59

3.1 Global grade habitat

CODE	DESCRIPTION	PAGE NO
А	Excellent value	59
В	Good value	59
С	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
А	15%-100%	62
В	2%-15%	62
С	< 2%	62
D	Non-significant population	62

3.2 Conservation status species (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
А	Excellent conservation	63
В	Good conservation	63
С	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
А	Population (almost) Isolated	63
В	Population not-isolated, but on margins of area of distribution	63
С	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' Or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
А	Excellent value	63
В	Good value	63
С	Significant value	63

3.3 Assemblages types

CODE	DESCRIPTION	PAGE NO
WATR	Non breeding waterfowl assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
101	Invasive non-native species	65
102	Problematic native species	65
103	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
К03	Interspecific faunal relations	65
К04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK02	Marine Nature Reserve	67
UK04	Site of Special Scientific Interest (UK)	67

COUNTY:	Berkshire/Surrey;	SITE. NAME: Windsor Forest and Great Park		
Status:	Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 (as amended)			
Local planning Authorities: Royal Borough of Windsor and Maidenhead, Bracknell Forest Borough Council, Runnymede Borough Council, Surrey County Council				
National Grid Reference: SU940730, SU970685, SU975725				
Ordnance Survey Sheet 1:50,000:175 1:10,000: SU96 NE, SU97 NW, SW, SE				
Date Notified	(Under 1949 Act): 1973	Date of Last Revision: 1975		

Date of Last Revision: 24 October 2001

Area:.. 1777.23 ha

Reasons for Notification

Date Notified (Under 1981 Act): 1983

Windsor Forest and Great Park farms part of the largest continuous tract of woodland and parkland in Berkshire. The site provides habitat for a range of rare species of invertebrate which include the internationally important violet click beetle *Limoniscus wolaceus* and stag beetle *Lucanus cervus* and a rich assemblage of other Red Data book beetles and flies. The range of provisional Red Data List fungi present includes *Buglossoporus pulvinus*, *Phelinus robustus*, *Boletus regius* and *Hericium coralloides*. In addition there are areas of unimproved acid grassland

General description

A range of habitats are represented, from coniferous and mixed plantations through mature and over-mature broadleaved woodland to wood pasture and parkland Relicts of the primary forest still survive as ancient oak pollards scattered throughout the Park and Forest. Veteran trees occur with a mosaic of unimproved and semi-improved grassland and grass-heath. Many of these ancient trees are over 500 years old and some reputed to be up to 800 years. Of equal importance, although not reaching such a great age, are numerous over-mature beech trees *Fagus sylvatica*. Being partially hollow and decayed, the oaks and beech afford habitats for a number of extremely rare and specialised insects, particularly beetles, some of which are unknown elsewhere in the British Isles, as well as nesting sites for several species of holenesting birds. Groves of hornbeam *Carpinus betulus* are favoured by hawfinches *Coccothraustes coccothraustes* including one of the largest wintering flocks of this species in Britain.

Windsor Forest and Great Park is second only to the New Forest with regard to the diversity of its invertebrate fauna. It is particularly noted for its rare beetles and flies. An impressive list of nearly 2,000 species of beetles has been recorded in recent years, many of which are endangered and vulnerable. Importantly these include beetles which rely on old trees and dying and decayed wood. These include the violet click beetle *Limoniscus violaceus* and a number of other click beetles and stag beetle *Lucanus cervus*. Many species of fungi occur,

including some which are extremely rare such as *Buglossoporus pulvinus*, *Phelinus robustus*, *Boletus regius* and *Hericium coralloides*.

The site also includes Great Meadow Pond, a secluded lake of importance for waterfowl, and areas of unimproved species-rich acid grassland such as that around Snow Hill, with a diverse flora including adder's tongue fern *Ophioglossum vulgatum*, mat grass *Nardus stricta*, lousewort *Pedicularis sylvatica*, bitter vetch *Lathyrus montanus*, harebell *Campanula rotundifolia* and many other species in a mosaic of short, dry turf, tall grassland and wet flushes.

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981

Bracknell Forest District Cour	ncil
SU905685	
175	1:10,000: SU96 NW
1973	Date of Last Revision: 1975
1983	Date of Last Revision:
	SU905685 175 1973

Area: 25.59 ha 63.23 ac

COUNTY: BERKSHIRE

Other information: This site was formerly included as part of Windsor Forest SSSI and is included in the Minute of Intent signed by the Crown Estate Commissioners and the Nature Conservancy in 1972. It is managed for informal recreation and nature conservation by Bracknell District Council.

Description and Reasons for Notification

A large pond surrounded by a wide fringe of reedswamp dominated by common reed *Phragmites australis*. Away from the open water the reedswamp grades into an interesting plant community typical of base-poor conditions. The transition from open water through base-poor wetland to dry ground is an exceptionally good example of this type of habitat which is relatively scarce in the lowlands.

The species present in the reedswamp include bog mosses *Sphagnum* spp., sundew *Drosera rotundifolia*, spike-rush *Eleocharis multicaulis*, bog pondweed *Potamogeton polygonifolius* and bog St John's wort *Hypericum elodes*. Cotton grass *Eriophorum angustifolium* and lesser reedmace *Typha angustifolia* are locally dominant. The western margin of the pond exhibits a transition into swampy woodland carr dominated by alder *Alnus glutinosa*. The open water plant community is relatively species-poor with much bulbous rush *Juncus bulbosus*, but the invertebrate community is of considerable interest with a rich dragonfly Odonata fauna. The reedswamp supports an interesting community of breeding birds, including reed warblers *Acrocephalus scirpaceus*, sedge warblers *A. schoenobaenus* and reed buntings *Emberiza schoeniclus*.

The site includes a catchment area of secondary woodland, large pine *Pinus sylvestris*, birch *Betula pendula* and oak *Quercus robur* on acid soils, together with a small fragment of heathland.

COUNTY:	BERKSHIRE	SITE NAM	IE: SWINLEY PARK AND BRICK PITS
Status:	Site of Special Scientifi 1981	c Interest (SSSI) notified under S	ection 28 of the Wildlife and Countryside Act
Local Planning Authorities:		Bracknell District Council, Berkshire County Council	
National Grid Reference:		SU895675, SU905670	
Ordnance S	urvey Sheet 1:50,000:	175	1:10,000: SU86 NE, SU96 NW
Date Notifie	d (Under 1949 Act):	1973	Date of Last Revision: 1975
Date Notifie	d (Under 1981 Act):	1983	Date of Last Revision:

Area: 86.8 ha 214.47 ac

Other information: This site was formerly included within the Windsor Forest SSSI and is included in the Minute of Intent signed by the Crown Estate Commissioners and the Nature Conservancy Council in 1972.

Description and Reasons for Notification

Part of the Crown Estate forest including, in Swinley Park, the most important concentration of ancient broadleaved trees remaining in the southern sector of Windsor Forest.

Most of the area consists of conifer plantation with patches of broadleaves, but scattered throughout are a number of ancient oaks, beech *Fagus sylvatica* and sweet chestnut *Castanea sativa*, notably along the rides and edges of forest compartments. Some of the oaks are pollards of great age and, although partially shaded by conifers, the decaying hulks of these ultra-mature trees provide habitats now rare in woodland. Many rare species of insect requiring dead and decaying large timber are known to be present. The area is also of interest for its birds, both hole-nesting species and birds of prey. An avenue of lime trees *Tilia europaea* supports a good local population of mistletoe *Viscum album*.

The site also includes Swinley Brick Pits, an area of old clay pits now much overgrown by birch, pine and rhododendron and including a number of small pools providing ideal habitat for several species of dragonflies, Odonata, and secluded cover for waterfowl, as well as breeding sites for all three species of newts.

Locally, where the ground is too wet for the proper establishment of coniferous trees, a wet heath flora has developed. A small colony of marsh clubmoss *Lycopdiella inundata*, rare in Berkshire, occurs in the brick pits area.

COUNTY:	BERKSHIRE		SITE NAME: CHAWRIDGE BOURNE
Status:	Site of Special Scientifi 1981	c Interest (SSSI) notified under	Section 28 of the Wildlife and Countryside Act
Local Planning Authorities:		Bracknell District Council	
National Gr	id Reference:	SU894736	
Ordnance S	urvey Sheet 1:50,000:	175	1:10,000: SU87 SE
Date Notifie	d (Under 1981 Act):	1983	Date of Last Revision:

Area: 8.94 ha 22.08 ac

Other information: Part of the site is managed as a nature reserve by the Berkshire, Buckinghamshire and Oxfordshire Naturalists Trust.

Description and Reasons for Notification

An area of unimproved grassland, scrub and broadleaved woodland containing species of plants local or rare in east Berkshire.

The site is situated on London Clay soils and lies along the banks of a small stream. About half the area consists of unimproved neutral to acid grassland, a habitat which is rare in Berkshire because of agricultural development. The grassland which, in part, is invaded by thickets of hawthorn *Crataegus monogyna* and blackthorn *Prunus spinosa* scrub, ranges from rank, ungrazed areas through short grazed turf to almost bare ground where some topsoil has been scraped away in the past. The tall grassland is dominated by false oat-grass *Arrhenatherum elatius* with Yorkshire fog *Holcus lanatus*, cock's foot *Dactylis glomerata* and tufted hair-grass *Deschampsia cespitosa*. Locally there are many large anthills covered in red fescue *Festuca rubra*. The sward contains many plants characteristic of neutral and acid grassland including sneezewort *Achillea ptarmica*, dyer's greenweed *Genista tinctoria*, meadow barley *Hordeum secalinum*, adder's tongue fern *Ophioglossum vulgatum*, cowslip *Primula veris*, pepper saxifrage *Silaum silaus*, hoary ragwort *Senecio erucifolius*, pale sedge *Carex pallescens*, trailing tormentil *Potentilla anglica*, devil's bit scabious *Succisa pratensis* and hairy violet *Viola hirta*

The fauna has so far been little studied, but includes common blue *Polyommatus icarus*, dingy skipper *Erynnis tages* and grizzled skipper *Pyrgus malvae* butterflies and harvest mice *Micromys minutus*.

Some of the grassland is now being grazed by sheep, and this management regime will improve the botanical value of the site by controlling the spread of coarse grasses and scrub.

The adjacent area of woodland (Steven's Copse) consists largely of neglected coppice, dominated by maple and ash with oak and crab apple *Malus sylvestris*, but is particularly noted for its abundance of wild service trees *Sorbus torminalis*. The ground flora is fairly species-rich and includes Goldilocks buttercup *Ranunculus auricomus*, hart's-tongue fern *Phyllitis scolopendrium* and soft shield-fern *Polystichum setiferum* which are rare in Berkshire.

The site includes, on the east bank of the stream, an ancient parish boundary hedge which is diverse in woody species including scattered oak pollards and field maple.

County:	BERKSHIRE/SURR	EY	Site name : BROADMOOR TO BAGSHOT WOODS	
			AND HEATHS	
Status:	Site of Special Scienti Act 1981 (as amended	ific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside d)		
Local Planning Authorities:		Bracknell Forest Borough Council, Surrey County Council, Surrey Heath District Council		
National Grid Reference:		SU877644		
Ordnance Survey Sheet 1:50,000:		175	1:10,000: SU86 SE, SW, NW, SU96 SW	
Date Notified (Under 1949 Act):		1973	Date of Last Revision: 1975	
Date Notified (Under 1981 Act):		1983, 1985	Date of Last Revision: 20 October 2000	
Area:	1696.99 ha			

Reasons for Notification

This site has an extensive mosaic of broadleaved woodland, coniferous plantation, dry and wet heathland, valley mire, a series of base-poor ponds and a scarce breeding invertebrate assemblage. In particular, the heathland and coniferous plantation supports internationally important populations of woodlark, nightjar and Dartford warbler, and have a nationally important dragonfly and damselfly population. The site includes the valley bogs of Broadmoor Bottom and Wishmoor Bottom which form the most important remaining examples of this type of habitat in the area.

General Description

The mosaic of habitats mostly overlies sandy Barton Bed deposits and plateau gravels of the Thames Basin series. Wetter areas are underlain by sands and clays of the Bracklesham Beds and alluvium.

The valley bog at Broadmoor Bottom supports wet heath dominated by cross-leaved heath *Erica tetralix* and the bog moss *Sphagnum compactum* with areas of bog myrtle *Myrica gale*. Wetter areas contain typical bog plants including bog asphodel *Narthecium ossifragum*, round-leaved sundew *Drosera rotundifolia*, and deer grass *Trichophorum cespitosum*, whilst purple moor-grass *Molinia caerulea* dominates much of the remainder. The valley bog at Wishmoor Bottom supports a rich bryophyte flora with nine species of *Sphagnum* bog moss including the nationally scarce *Sphagnum flexuosum*, and *S. magellanicum* which is scarce in southern England. Hare's-tail cotton grass *Eriophorum vaginatum*, which is uncommon in south-east England, is also present in wetter areas around Wishmoor Bottom, together with two important fern species, the nationally rare crested buckler-fern *Dryopteris cristata* and the nationally scarce marsh fern *Thelypteris palustris*.

The drier heathland is mainly dominated by heather *Calluna vulgaris* and dwarf gorse *Ulex minor*, with areas of bracken and pine and birch scrub. An area of grass heath dominated by bristle bent *Agrostis curtisii* and dwarf gorse occurs to the east of Wishmoor Bottom at one of the most easterly limits of the community. Common wintergreen *Pyrola minor*, which has a very local distribution in Berkshire, is present in the grass heath.

The invertebrate fauna of the wetland areas includes the bog bush-cricket *Metrioptera brachyptera* and a range of dragonflies. These include the broad-bodied chaser *Libellula depressa*, black-tailed skimmer *Orthetrum cancellatum*, large red damselfly *Pyrrhosoma nymphula* and the golden-ringed dragonfly *Cordulegaster boltonii* which is local in southern England. The dry heathland areas support the nationally scarce silver-studded blue butterfly *Plebejus argus*, and the uncommon spider *Euarcha arcuata*.

The mixture of open heathland and woodland provides habitat for heathland birds including stonechat *Saxicola torquata*, redstart *Phoenicurus phoenicurus* and three particularly vulnerable species of bird, woodlark *Lullula arborea*, nightjar *Caprimulgus europaeus* and Dartford warbler *Sylvia undata*. The site also has a small breeding population of hobby *Falco subbuteo*. Forestry management of the coniferous woodland, which includes rotational clearance and subsequent replanting, provides temporary areas of developing heathland. These areas, together with open storm damaged areas and the developing heathland alongside broad forest rides, are utilised as breeding habitat by woodlark and nightjar.

Rapley Lakes are a collection of large, base-poor ponds. They support a rich diversity of aquatic and marginal plants including alternate water milfoil *Myriophyllum alterniflorum*, bog St John's wort *Hypericum elodes* and lesser bulrush *Typha angustifolium*. Of particular importance is the dragonfly fauna with several rare species present including the brilliant emerald *Somatochlora metallica*, ruddy darter *Sympetrum sanguineum*, downy emerald *Cordulia aenea* and small red damselfly *Ceriagrion tenellum*.

Other Information

- 1. This site includes land which has been proposed for the designation as a Special Protection Area under the Directive 79/409/EEC on the Conservation of Wild Birds. Nightjar, woodlark and Dartford warbler are listed on Annex I of the Directive.
- 2. Woodlark, Dartford warbler and hobby are specially protected by being listed in Schedule I of the Wildlife and Countryside Act 1981 (as amended).
- 3. Woodlark and nightjar are priority species in the UK Biodiversity Action Plan.
- 4. Lowland heathland is a priority habitat in the UK Biodiversity Action Plan.

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981

Local Planning Authorities:	Bracknell District Council, Be	erkshire County Council
National Grid Reference:	SU851686	
Ordnance Survey Sheet 1:50,000:	175	1:10,000: SU86 NW, SU86 NE
Date Notified (Under 1981 Act):	1984	Date of Last Revision:

Area: 3.15 ha 7.79 ac

COUNTY:

Description and Reasons for Notification

BERKSHIRE

Wykery Copse is a fragment of ancient broadleaved woodland of a kind now drastically reduced in Berkshire, situated on London Clay on the fringe of Bracknell. It is exceptionally diverse for its size, in terms of both woodland stand-types and herbaceous flora, and it contains several rarities. Its interest is enhanced still further by the small stream which flows through it.

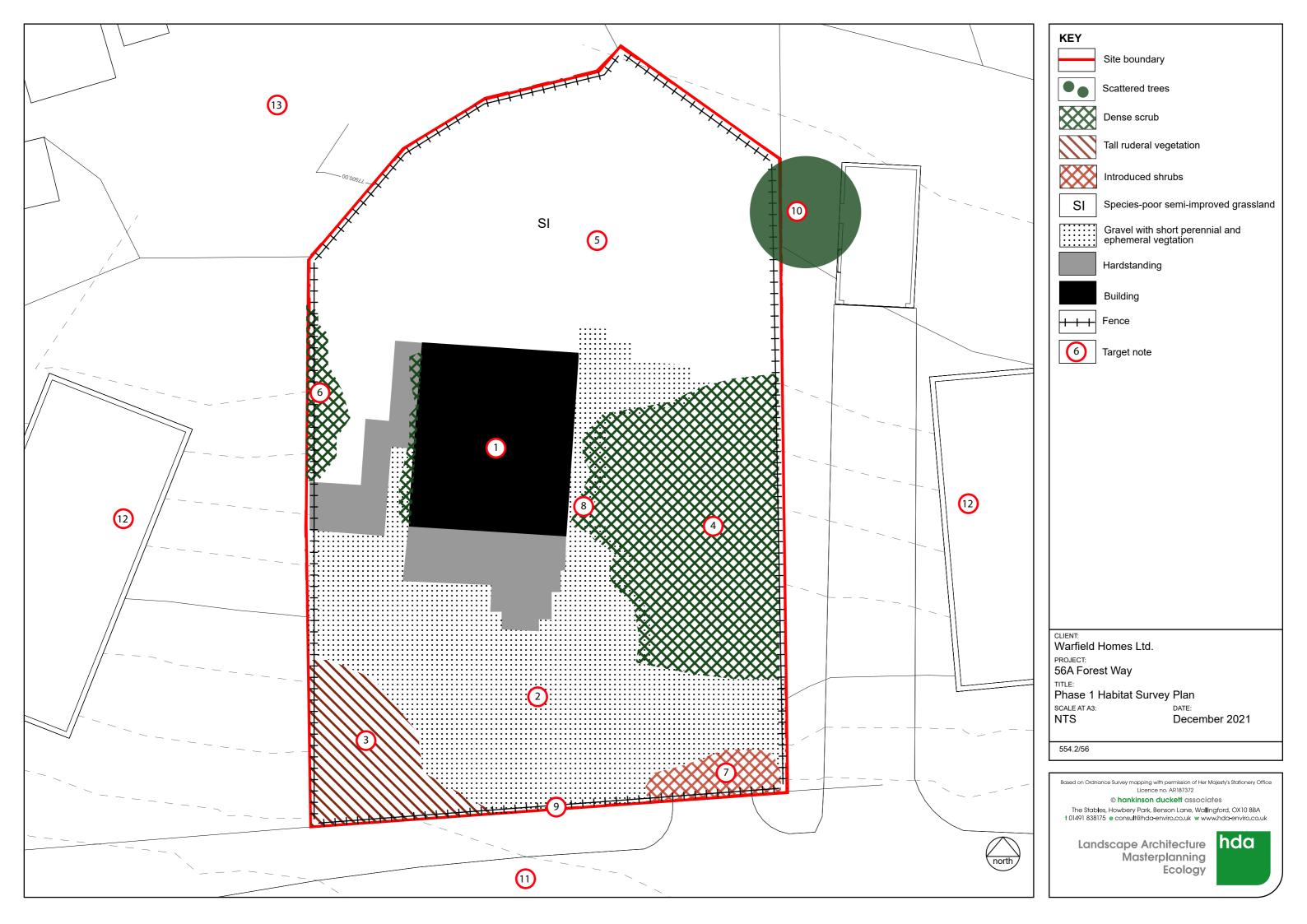
Woodland types include wet ash-maple, valley and base-rich springline alder, and oak, with birch and hazel. There are intermediate grades, and all types except oak have been coppiced at various times. Some English elm survives, and there is a thriving colony of the rare wild service tree *Sorbus torminalis*. Other trees include gean, rowan, holly, crack and grey willows, aspen, crab apple and poplars *Populus serotina* of planted origin. Coppiced hazel is a major component of the dense and varied understorey, which also includes blackthorn, hawthorn, honeysuckle, wild red currant *Ribes sylvestre*, guelder rose and dogwood, this last unusual on London Clay.

The ground flora contains a mosaic of bramble and bluebell *Hyacinthoides non-scriptus*, with more open areas, including the course of the stream, favouring a very wide range of herbaceous species, many of which (like wild service and several of the shrubs) testify to the long history of the copse. These include several rare or local species, such as the sedges *Carex strigosa* and *C. pallescens*, early purple orchid *Orchis mascula*, wood anemone *Anemone nemorosa*, pignut *Conopodium majus*, yellow archangel *Lamiastrum galeobdolon*, yellow pimpernel *Lysimachia nemorum*, wood sorrel *Oxalis acetosella*, primrose *Primula vulgaris*, figwort *Scrophularia nodosa*, wood speedwell *Veronica montana* and the grasses *Melica uniflora*, *Milium effusum* and *Bromus ramosus*. There is a luxuriant moss flora in parts, with *Hypnum cupressiforme* being particularly abundant.

The range of invertebrates and breeding birds appears to be good and warrants further investigation.

APPENDIX B

Phase 1 habitat survey: map and target notes



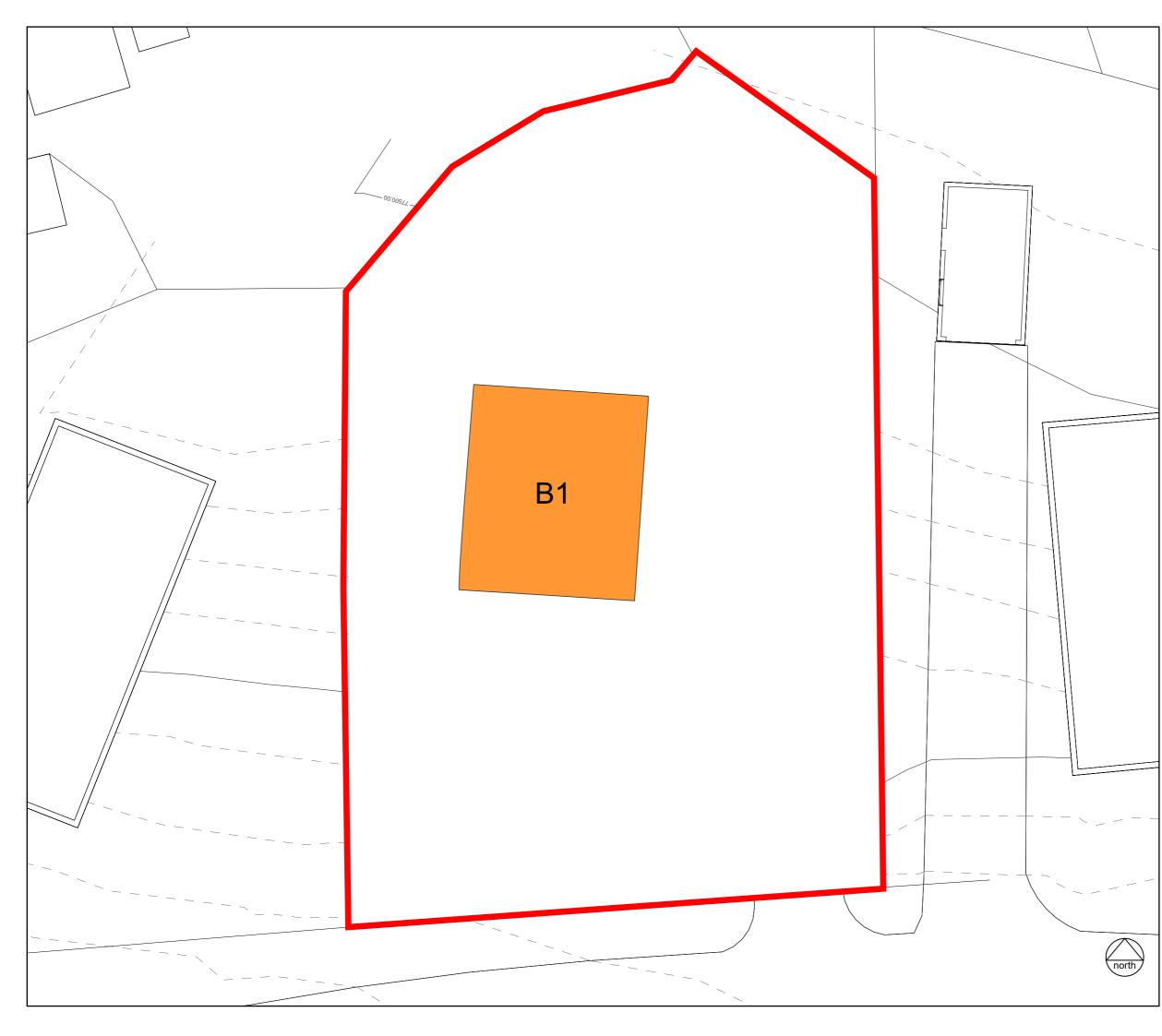
Target notes

- 1 Disused prefabricated park home with hardstanding, concrete slabs and gravel surrounds. Cracks in the hardstanding are becoming colonised by vegetation including Buddleia (*Buddleja davidii*), Sycamore (*Acer pseudoplatanus*) saplings, and Pendulous Sedge (*Carex pendula*).
- 2 Gravel area in the south of the site which is largely disused and becoming colonised by a mix of short perennial and ephemeral vegetation. Species present include Ribwort Plantain (*Plantago lanceolata*), Shepherd's Purse (*Capsella bursa-pastoris*), Smooth Sow-thistle (*Sonchus oleraceus*), Creeping Buttercup (*Ranunculus repens*), Nipplewort (*Lapsana communis*), Wood Avens (*Geum urbanum*), Black Medick (*Medicago lupulina*), Herb Robert (*Geranium robertianum*), Rough Hawkbit (*Leontodon hispidus*), and Common Daisy (*Bellis perennis*). Small clumps of Pendulous Sedge are also present throughout.
- 3 A large soil mound in the south-west corner of the site has become colonised with tall ruderal vegetation and scrub saplings. Species include Buddleia, Great Willowherb *(Epilobium hirsutum)*, Common Ragwort *(Jacobaea vulgaris)*, Prickly Sow-thistle *(Sonchus asper)*, Cats-ear *(Hypochaeris radicata)*, Hedge Woundwort *(Stachys sylvatica)*, Purple Toadflax *(Linaria purpurea)*, Tufted Vetch *(Vicia cracca)*, Common Nettle *(Urtica dioica)*, Broad-leaved Dock (*Rumex obtusifolius)*, Shield Fern *(Polystichum sp.)*, Pendulous Sedge, Bramble (*Rubus fruticosus*), Annual Meadow-grass *(Poa annua)*, Cocksfoot *(Dactylis glomerata)* and Yorkshire Fog *(Holcus lanatus)*. Sycamore and Goat Willow *(Salix caprea)* saplings are also scattered throughout.
- 4 A patch of dense Bramble scrub, approximately 1.5m high, has colonised the gravel area in the east of the site. Hedge Bindweed (*Calystegia sepium*) and Pendulous Sedge are also present.
- 5 Species-poor semi-improved grassland in the north of the site which has become rough through a lack of recent management. Dominant grass species include Yorkshire Fog, Annual Meadow-grass and Cocksfoot. Herbaceous species include Wood Avens, Common Ragwort, Herb Robert, Nipplewort, Black Medick, Common Bird's-foot-trefoil (*Lotus corniculatus*), Cleavers (*Galium aparine*), Common Daisy, Rosebay Willowherb (*Chamaenerion angustifolium*) and Dandelion (*Taraxacum officinale*). Springy Turf-moss (*Rhytidiadelphus squarrosus*) is also present.
- 6 A dense area of scrub in the west of the site including Sycamore and Goat Willow saplings with Bramble.
- 7 A large Cherry Laurel (*Prunus laurocerasus*) bush is located in the south-eastern corner of the site.
- 8 A pile of wooden panels located adjacent to the eastern elevation of the park home building. The panels are becoming overgrown with Bramble.
- 9 A closed board panel fence surrounds the site on all sides and a six-foot-high iron and timber panel gate is present on the southern boundary.
- 10 A mature introduced coniferous tree slightly overhangs the north-eastern site boundary from adjacent land.
- 11 The Elms access road is located to the south of the site.

- 12 A series of park homes set within small, enclosed gardens border the site to the west and east.
- 13 An area of mature trees and scrub is located to the immediate north of the site

APPENDIX C

Phase 1 bat scoping survey plan



Site boundary



Building with moderate bat roost potential

*Roosting categories relate to roost potential in accordance with the BCT 2016 guidelines. All trees within the site are regarded as having 'Negligible' potential to support roosting bats.

CLIENT: Warfield Homes Ltd. PROJECT: 56A Forest Way TITLE: Phase 1 Bat Scoping Survey Plan SCALE AT A3: NTS December 2021

554.2/55

Based on Ordnance Survey mapping with permission of Her Majesty's Stationery Office Licence no. AR187372

© hankinson duckett associates The Stables, Howbery Park, Benson Lane, Wallingford, OX10 8BA t 01491 838175 e consult@hda-enviro.co.uk w www.hda-enviro.co.uk

hda

Landscape Architecture Masterplanning Ecology

APPENDIX D

Phase 1 bat scoping photographs



North-western elevation of B1



Southern elevation of B1

APPENDIX E

Evaluation criteria

Criteria used for the evaluation of ecological receptors (based on Ratcliffe, 1977; CIEEM 2018) Assigning value is relatively straightforward in the case of designated sites, and undesignated sites meeting designation criteria. However, in most cases evaluation of ecological resources is not straightforward and requires a degree of knowledge, experience and professional judgement (Usher, 1986; Spellerberg, 1992). Evaluation of an ecological receptor was based on a number of criteria (Ratcliffe, 1977; CIEEM 2018) summarised below:

- Site designations; SPA, SAC, Ramsar, SSSI, NNR, LNR, SINC or equivalent.
- Site designation criteria; e.g. Guidelines for the Selection of Biological SSSIs, JNCC, 1989.
- Conservation status; whether a habitat or species is rare, declining or threatened at a given geographic scale.
- Geographic location; the value of a habitat or species may change depending on whether it is being assessed in the south of England or the north of Scotland.
- Distribution; habitats or species on the edge of their distribution, particularly where that distribution is changing as a result of global trends and climate change and endemic species or locally distinct sub-populations of a species are more valuable;
- Rarity; the presence of habitats, species, subspecies or varieties that are rare or uncommon at a given geographic scale.
- Diversity; of habitats, or species, particularly of vascular plants. Species-rich assemblages of plants or animals are likely to be important in terms of biodiversity;
- Naturalness; habitats least affected by human disturbance are normally of relatively higher importance.
- Size; larger areas are generally more valuable than lots of small ones. Notably large populations of animals or concentrations of animals considered uncommon or threatened in a wider context may be important.
- Fragility; sensitivity to, and probability of, human impact.
- Typicalness; a good example of the type, particularly plant communities (and their associated animals) that are considered to be typical of valued natural/semi-natural vegetation types, including examples of naturally species-poor communities.
- Potential value (if restored to favourable conservation status).
- Secondary or supporting value; value of a receptor in supporting the integrity or conservation status of another valued receptor.
- Ability to be recreated; the more difficult a habitat is to re-create, were it to be destroyed, the greater the importance usually attached to it.