



SAM
WATSON
ECOLOGY

LAND AT READING ROAD, ARBORFIELD

Ecological Impact Assessment and
Shadow Habitats Regulation Assessment

November 2024

Report ref: SWE-P24-0078-R1

Sam Watson Ecology
45 Bull Street
Aston
Bampton
OX18 2DT

Samwatsonecology@gmail.com
07971 555192



PROJECT: Land at Reading Road, Arborfield

CLIENT: Dandara Southern Ltd and Elstree Land

REPORT REF: SWE-P24-0078-R1

PREPARED BY: Sam Watson BSc (Hons) MCIEEM

DATE OF ISSUE: November 2024

PROJECT DESCRIPTION: Outline planning application for the erection of up to 111 dwellings, with associated works, parking, landscaping and publicly accessible open space, with access from Reading Road.

REPORT SCOPE: Ecological impact assessment and shadow habitats regulation assessment - non-EIA. This report is not part of an Environmental Impact Assessment further to The Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

REPORT CONTENTS

1.0	INTRODUCTION AND METHODS	1 Page
2.0	RESULTS – DESK STUDY	5 Page
3.0	RESULTS – HABITAT SURVEY	6 Page
4.0	RESULTS – FAUNA	9 Page
5.0	IMPACT ASSESSMENT AND MITIGATION	12 Page
6.0	SHADOW HABITATS REGULATIONS ASSESSMENT	17 Page
7.0	ADDITIONAL RECOMMENDATIONS	20 Page

Drawings

0078-2210-1	Reptile survey
0078-2210-2	Ponds surveyed for great crested newts



0078-2210-3 Habitat map

Appendices

Appendix 1	List of higher plants recorded on the site
Appendix 2	Detailed bat survey results
Appendix 3	eDNA analytical reports
Appendix 4	Bird survey results

Photos



1.0 INTRODUCTION AND METHODS

Introduction

- 1.1 Sam Watson Ecology was appointed by Dandara Southern Ltd and Elstree Land to carry out an Ecological Impact Assessment (EclA) and shadow Habitats Regulations Assessment (sHRA) of a proposal to develop the site known as Land at Reading Road, Arborfield.
- 1.2 The site is located broadly centrally within Arborfield, approximately 2.2km to the south of Reading (approximate central grid reference SU 75488 67512). The site's southern and western boundaries are defined by Reading Road and Church Lane respectively. To the east is pastoral farmland. Beyond these features and also adjoining the site to the north is existing built development. Cross Lanes Farm is also to the south.

Methods

Desk study

- 1.3 In order to obtain archive information relating to the ecological interest present within and surrounding the site, the Thames Valley Environmental Records Centre (TVERC) was contacted in September 2024 to request any information they held relating to statutory and non-statutory nature conservation designations within a 2km search radius of the centre of the site. Protected and/or notable species records were also requested for this search area.
- 1.4 The desk study also made use of publicly available internet resources including the Government's Multi-Agency Geographic Information for the Countryside (MAGIC¹) database, and Bing and Google maps, to review Ordnance Survey maps and aerial photographs of the local area to provide contextual information. Information relating to European protected species licences within a 2 km search radius was also reviewed as part of this search.

Extended Phase 1 habitat survey

- 1.5 A Phase 1 habitat survey was carried out across two visits to the site on 10th June and 13th November 2024. Additional information relating to the habitats and species within the site was also gathered concurrently with other visits to the site, such as during the reptile survey.
- 1.6 The methodology for the habitat surveys was based on the Phase 1 approach devised by the former Natural Conservancy Council (now Natural England), and updated periodically by the Joint Nature Conservation Committee². This technique categorises and maps the broad

¹ Multi-Agency Geographic Information for the Countryside, MAGIC.gov.uk

² JNCC, (2010), *Handbook for Phase 1 habitat survey - a technique for environmental audit*



habitat types present within the site and targets areas of more interest or that would benefit from further survey. Additional detail was also gathered in the form of representative lists of species compiled for each habitat (an 'extended' Phase 1 survey).

- 1.7 During the habitat surveys attention was given to identifying any habitats of 'Principal Importance' (HPI) further to Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, (i.e. 'Priority Habitat' types). These were identified based on the descriptions set out by the Biodiversity Reporting and Information Group³.
- 1.8 In addition, hedgerows within the site were also assessed for their potential to meet the ecological criteria of an 'Important' hedgerow as defined by the Hedgerows Regulations 1997, by noting the number and type of native woody species present (as listed on Schedule 3 of the Regulations), and recording the presence of relevant hedgerow features, such as ditches, banks, standard trees, lack of gaps, parallel hedgerows and connections with other hedgerows/woodlands/ponds.
- 1.9 Throughout the habitat surveys, the potential for the site to support protected and/or notable species, such as reptiles, was assessed. The site was also searched for evidence of badgers *Meles meles*, including setts, latrines, 'push-throughs' and foraging evidence concurrently with the habitat surveys.

Reptile survey

- 1.10 During the initial habitat survey in June 2024, the site was assessed to have the potential to support common, but partially protected reptile species. As such, in order to confirm the presence or likely absence of reptiles, a standardised survey was carried out based on the methodology set out within the 1999 Froglife guidance⁴. This involved placing out 86 pieces of artificial refugia in the form of sheets of corrugated bitumen approximately 50 x 76cm in size, around the site on 7th September 2024 (see Drawing 0078-2210-1 for the location of the refugia).
- 1.11 Following a short 'bedding in' period, the site was revisited on seven occasions between 14th September and 15th October 2024 so that the refugia could be checked for reptiles. Any reptiles seen during each check were identified to species level, allocated to an age class and sexed, where possible. Checks of the refugia were carried out during periods of favourable weather when reptiles could reasonably be expected to be active, i.e. warm days with a temperature above 9°C and with an absence of heavy or continuous rain.

³ BRIG (ed. Ant Maddock) (2008). "UK Biodiversity Action Plan Priority Habitat Descriptions"

⁴ Froglife (1999) *Reptile survey: an introduction to planning, conducting and interpreting surveys for snakes and lizard conservation*. Froglife Advice Sheet 10. Froglife, Halesworth.



Bats – static detector survey

- 1.12 The site was assessed during the initial habitat survey as having low suitability habitat for bats and prevailing guidance⁵ recommends that surveys covering the spring (April and May), summer (June to August) and autumn (September and October) periods are carried out. Whilst a summer and autumn survey has been carried out, it has not yet been possible to complete the spring survey, and this should be completed prior to determination of the application.
- 1.13 In order to assess the use of the site by bats, and by which species, an enhanced static detector survey was carried out, employing two detectors rather than one detector. The decision to substitute the night-time bat walkover for an additional detector was because a detector would gather significantly more data i.e. 5 nights compared to 1.5-2 hours. Whilst this approach meant that much of the spatial data regarding bat activity within the site would not be collected, analysis of data from a night-time bat walkover survey beyond species identification is now discouraged by the survey guidance, in any event. Given the relatively small site, it is also reasonable to assume that any bats detected would be likely to be active across the whole site.
- 1.14 Two static Anabat detectors⁶ were deployed on the site for each survey period (see Drawing 0078-2210-3 for the location of the detectors). The same locations were used each time for consistency. The detectors were set to record from 30 minutes before sunset until 30 minutes after sunrise the following morning, each night they were in place. For each deployment, the detectors were in place for a minimum of five nights during which bats could reasonably be expected to be active.

Bats – building survey

- 1.15 In order to investigate the potential use of the built structures on the site by bats for roosting, a preliminary roost assessment was carried out on 10th June 2024. The methodology employed for this was based on that outlined in the 4th Edition of the Bat Conservation Trust (BCT) good practice guidance whereby the roosting potential of each building is assessed based on the presence or not of features that bats could potentially exploit for roosting. Such features can include roof voids, basements, gaps behind fascia/barge boards and soffits, loose, missing or hanging coverings such as roof tiles and lead flashing, cracks in brickwork or panelling, and where weatherboarding has warped allowing potential access behind.
- 1.16 An assessment of the overall suitability of each building to support roosting was then carried out based on the presence, number and suitability of the features identified.

⁵ Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edition). The Bat Conservation Trust, London.

⁶ A combination of Anabat swift and ranger detectors was used



- 1.17 The building survey was carried out by Samuel Watson who is registered on Natural England's Bat Survey Class Licence CL18, registration ref: 2015-11529-CLS-CLS.

Great crested newt presence/absence survey

- 1.18 In order to confirm the presence or likely absence of great crested newts *Triturus cristatus* in the ponds on site and in proximity to the site, a survey using the eDNA sampling technique has been carried out. This involves a water sample being collected from each pond and sent to an approved laboratory (Cellmark) where it is analysed for great crested newt DNA using the qPCR method. Natural England accept as confirmation of the presence or absence of this species, the result from a water sample collected between mid-April and the end of June.
- 1.19 The ponds sampled are shown on Drawing 0078-2210-2, of which pond P1 is on site and ponds P2 and P3 are off-site. The water samples were collected from ponds P1 and P2 on 10th June 2024, with a sample obtained from pond P3 on 25th June. Pond 4 which is within the site, was not accessible at the time. Two further ephemeral waterbodies, just outside the site (Ponds 5 and 6), did not contain sufficient water for a sample to be collected in June 2024. This does, however, also mean that they are unlikely to be used by great crested newts in any event, as breeding would not be possible.
- 1.20 The water samples were collected by Sam Watson, who is registered to operate under the great created newt class survey licence CL08, registration ref: 2015-16909-CLS-CLS.

Breeding bird assessment

- 1.21 Although a detailed breeding bird survey was beyond the scope of this appraisal, an assessment of the assemblage of bird species on the site was nevertheless carried out across two visits to the site on 15th June and 18th July 2024. The methodology for this was based on the British Trust for Ornithology's Common Birds Census (CBC) technique⁷ and involved the surveyor attending the site early in the morning, when birds are most active, and walking all accessible parts of the site in order to record bird registrations (visual or aural) occurring at that time. This is then used to provide an assessment of the species of bird likely to be breeding in the site or which have a territory that includes part of the site.
- 1.22 The site visits were carried out in suitable weather, avoiding conditions that could suppress bird activity or otherwise compromise the effectiveness of the technique such as strong wind and/or heavy rain.

⁷

e.g. Bibby *et al.* (2000) 'Bird Census Techniques - 2nd Ed' Academic Press



2.0 RESULTS – DESK STUDY

Designations

- 2.1 The desk study confirms that no part of the site or land immediately adjacent to it is the subject of a statutory or non-statutory nature conservation designation. There are also no statutory designations within the 2km search area. The nearest statutory designation is Longmoor Bog Site of Special Scientific Interest (SSSI) which is some 2.8km to the southeast. In addition, the site is within 5km of the nearest part of the Thames Basin Heaths Special Protection Area (SPA) and information to inform a Habitats Regulations Assessment of the proposal is provided at Section 6.
- 2.2 There are 15 non-statutory Local Wildlife Site's (LWS) within the search area. The closest is Pound Copse which is c170m to the southwest and which contains ancient and semi-natural woodland. The citation for the designations identifies it as containing the National Vegetation Classification woodland types - W8 ash-fled maple-dog's mercury woodland and W10 oak-bracken-bramble woodland.
- 2.3 The next nearest LWS are Hazeltons Copse and the River Loddon, with are c700m east and northwest respectively. Hazelton Copse is also ancient and semi-natural woodland. The River Loddon at this location contains features including marsh, islands, inlets, riffles, river cliffs and extensive and varied channel vegetation, and supports the uncommon Loddon Pondweed *Potamogeton nodosus*.

Protected and notable species

- 2.4 None of the protected and notable species records provided TVERC are confirmed as being located within the site itself. Potentially relevant to the assessment of the site's potential to support reptiles are records of both slow worm *Anguis fragilis* and grass snake *Natrix Helvetica* around Arborfield Cross c700m to the southeast of the site.
- 2.5 Other potentially relevant records located outwith the site in the wider search area include: two records of great crested newt both c1.85km to the south; records of brown long-eared bat *Plecotus auratus*, common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *P. pygmaeus* roosts in buildings adjacent to the site; and stag beetle *Lucanus cervus*. [REDACTED]
- [REDACTED]
- [REDACTED]



3.0 RESULTS - HABITAT SURVEY

3.1 The following habitats were recorded on the site.

- Other, neutral grassland
- Modified grassland
- Scrub
- Hedgerows
- Ditch
- Pond
- Swamp
- Isolated tree
- Tall ruderal
- Disturbed ground

3.2 Each habitat is mapped on Drawing 0078-2210-3 and described in more detail below, with reference to the dominant or more notable species identified. A list of higher plants recorded on the site is included at Appendix 1.

Other, neutral grassland

3.3 This grassland type covers much of the centre and western end of the site and appears to have received little or no active management. Grasses recorded in this habitat include Yorkshire fog, Timothy, sweet vernal grass, cock's-foot, meadow foxtail and red fescue. Herbs characteristic of this habitat include abundant common fleabane, greater bird's-foot trefoil and creeping buttercup, as well as creeping thistle, ragwort, agrimony, meadow vetchling, hairy tare, lesser stitchwort and creeping cinquefoil. In wetter areas water mint was also frequent. Recorded rarely in this habitat were field woodrush, wood sedge, ivy-leaved speedwell, spear thistle, bush vetch, cut-leaved cranes-bill, oxeye daisy and tall fescue.

3.4 One prominent addition to this habitat was Canadian fleabane, which dominated relatively large parts of the centre of the site (Target notes 1, Drawing 0078-2210-3). A review of aerial photos suggests that its distribution aligns with areas where scrub was recently cleared.

Modified grassland

3.5 This habitat is contiguous with those parts of the site that are grazed by horses, although it is also present in an area in the southeast corner which is used to store caravans (Target note 2 Drawing 0078-2210-3). The grassland has a relatively high percentage of bare ground and the dominant grasses are common bent, perennial ryegrass and smooth meadow grass. Other grasses recorded include Yorkshire fog, false oat-grass and meadow foxtail. The sward



has a typical mix of ubiquitous herbs, including dandelion, daisy, white clover, yarrow, ragwort, lesser trefoil, frequent creeping buttercup and locally abundant nettle. Species such as spear and creeping thistle, common fleabane and broadleaved dock also occur rarely.

Scrub

- 3.6 Scrub makes up a significant proportion of the habitats on the site, of which bramble thickets, often dense, are the most abundant. In addition, there is a belt of goat willow dominated scrub that is associated with an east to west aligned ditch through the centre of the site. Mixed scrub habitat contains both of these species together with blackthorn, elder, dog rose, oak, silver birch, ash, hazel and hawthorn. Herbaceous vegetation recorded in association with the scrub included common fleabane, Canadian goldenrod, spear and creeping thistle, American willowherb, hogweed, hemlock, soft rush, nettle, male fern, cock's-foot, false oatgrass,

Hedgerows

- 3.7 An account of the woody species and features within the hedgerow is given in Table 1 below, together with an assessment of the likely classification of each in accordance with the ecological criteria of the 1997 Hedgerow Regulations.

Table 1 – hedgerow assessment

Hedgerow reference ¹	Woody species present ²	Average species ³	Species richness	Features present ⁴	Likely classification ⁵
H1	Ash, hybrid lime, hawthorn, dog rose, elm, hornbeam, hawthorn	4	Species-poor	No gaps, trees, ditch	Not Important
H2	Oak, hazel, hawthorn, blackthorn, field maple, hornbeam, elder, ash, (sycamore)	5	Species-rich	Trees, no gaps, parallel, ditch	Important
H3	Goat willow, oak, elder	3	Species-poor	Trees	Not important - defunct
H4	(Leyland cypress)	N/A	N/A	N/A	Not important - ornamental

1 - as denoted on Drawing 0078-2210-3

2 - species in brackets (where applicable) are not included on Schedule 3 and are not therefore included in the assessment of Importance or species-richness

3 - average number of native woody species, as defined by Part II of Schedule 1

4 - defined by Schedule 1

5 - assessment against ecological criteria of the 1997 Hedgerows Regulations

Ditch

- 3.8 There are two seasonally wet ditches on the site. One is associated with an area of goat willow scrub and is heavily shaded and lacks aquatic vegetation. The other is towards the



western end of the site and is aligned broadly north to south. This is identified as a Main River on the Environment Agency's Statutory Main River Map, although it has either been dry or had limited amounts of standing water when the site has been visited. It lacks aquatic vegetation and where bramble adjoins the ditch, it has little marginal vegetation other than the bramble itself. More open areas, however, contained pendulous, false fox and remote sedge, soft rush, enchanter's nightshade, foxglove and common fleabane.

Pond

- 3.9 There are two ponds on the site. Pond P4 is close to Reading Road and appears ephemeral, only containing water during periods of heavy rainfall. This did not contain any aquatic or marginal vegetation when surveyed in November 2024. The other pond, P1) is located towards the northern end of the site and would appear to be permanent. It contained abundant reedmace with common fleabane, water mint and branched bur-reed also recorded. This pond also has a layer of duckweed on the surface.

Swamp

- 3.10 There is an area of common reed dominated swamp on the site. Other species recorded in this included common fleabane, water mint and greater pond sedge.

Isolated trees

- 3.11 Trees not part of a hedgerow or other defined habitat included species such as oak, silver birch, goat willow, Turkey oak, horse chestnut, hornbeam, blackthorn, yew and Scot's pine.

Tall ruderal

- 3.12 There two small pockets of ruderal dominated vegetation on the site. Collectively these contained hemlock, common vetch, bramble, creeping buttercup, creeping cinquefoil, mugwort, bristly-ox-tongue, gallant soldier, red dead nettle, teasle, nettle, pendulous sedge, and spear and creeping thistle.

Disturbed ground

- 3.13 At the centre of the northern boundary, the site encompasses a small area used for growing vegetables and flowers, and an area that is used to store a compost type material. The former contained buddleia, dahlia and nettle. The compost was sporadically colonised by enchanter's nightshade.



4.0 RESULTS – FAUNA

Reptile survey

- 4.1 The results of the reptile survey are provided in Table 2 below. The only reptile species recorded was grass snake. No adult individuals were recorded, with a peak of two juvenile animals⁸ recorded on 16th September. The location of refugia under which a reptile was recorded is shown on Drawing 0078-2210-1.

Table 2 – reptile survey results

Date	Juvenile grass snake	Time	Temperature °C	Cloud Cover	Weather description
14/09/2024	1	15:30	18	10%	Sunny, warm. Refugia worm to touch
16/09/2024	2	17:00	19	20%	Sunny, warm. Refugia worm to touch
27/09/2024		17:00	13	70%	Overcast
29/09/2024		14:00	13	50%	Warm, sunny intervals
05/10/2024	1	14:50	15	40%	Warm, sunny interval, cool breeze
06/10/2024		11:00	16	100%	Overcast, very light drizzle before survey, but dry during check
15/10/2024		18:00	16	100%	High level cloud only

Bats – static detector survey

- 4.2 The location of the detectors within the site is shown on Drawing 0078-2210-3. A summary of the bat surveys is provided in Table 3 below, with nightly results included at Appendix 2. Each ‘registration’ equates to a sound file that is up to 10 seconds in length and may contain several individual bat ‘passes’. Note that a survey ending e.g. 15th September, would include calls recorded between midnight and sunrise on the 16th.
- 4.3 Registrations listed as *Myotis* and *Plecotus* are from bats within these genera, but which it has not been possible to confidently identify to species level. Similarly, registrations listed under *NyctEpte* are ‘big bats’ from the genera *Nyctalus* or *Eptesicus*.

⁸ A juvenile is one likely to have been born this year and which has yet to over-wintered



Table 3 – bat survey results

Species	Summer		Autumn	
	West	East	West	East
Common pipistrelle	137	337	80	23
Soprano pipistrelle	83	73	27	9
Nathusius' pipistrelle	-	1	1	-
<i>Myotis</i> species	-	11	13	6
Noctule	52	81	9	3
NyctEpte	2	9	-	-
<i>Plecotus</i> species	12	15	4	12
Barbastelle	-	-	3	1
Unidentified	1	1	1	-
Total registrations	287	528	138	54

Bats – building survey

- 4.4 The site contains a number of small shed and stables type buildings. These are either prefabricated or constructed from a mix of breeze block, wood, metal and corrugated sheeting. A metal shipping container was also noted on the site. Whilst access was not possible into all the buildings, they were all assessed to have negligible bat roosting potential.

Great crested newt presence/absence survey

- 4.5 Analysis of the water samples collected from ponds P1 (on site), P2 and P3 (both off site) were negative for great crested newt eDNA (see analytical reports at Appendix 3). Based on this result it is reasonable to assume that the ponds do not support breeding great crested newts. As such, this species is unlikely to be present within the application site.

Breeding bird assessment

- 4.6 The results of the bird survey are provided at Appendix 4. In summary, a total of 27 species were recorded during the surveys. Of these ten were confirmed as breeding within, or immediately adjacent to the site, 11 were probable breeders and four were possibly breeding.

Results – other fauna

- 4.7 No evidence of other protected or notable species has been recorded, in particular no evidence of badgers has been found. Furthermore, the ditches were assessed to be suitable



for water vole and otter. Whilst the site contains some deadwood, it is relatively infrequent and the site is unlikely to provide a significant resource for stag beetle as a result.



5.0 IMPACT ASSESSMENT AND MITIGATION

Methodology

- 5.1 Ecological Impact Assessment is the process of identifying, quantifying and evaluating potential effects of development-related or other proposed actions on habitats, species and ecosystems. The point of reference for this process when evaluating the site has been the Chartered Institute for Ecological and Environmental Management's guidelines for EcIA⁹, with expert judgment used as required during this process. The findings of the assessment are intended to assist the competent authority in understanding the ecological effects arising from the proposal when determining an application for consent.

Designated sites

Impact assessment

- 5.2 The desk study confirms that no part of the site or the land immediately adjacent to it is the subject of a statutory or non-statutory nature conservation designation. As such, there is assessed to be no scope for the proposed development to have a direct impact on a nature conservation designation.
- 5.3 Given the spatial separation of the site from the surrounding LWS and limited public access to Pound Copse LWS, which is closest to the site, the proposed development is assessed as unlikely to generate an indirect recreational impact high enough to represent a risk to the interest features of these designations. No significant impact on a LWS is therefore anticipated.
- 5.4 Further information relating to the assessment of the scope for the development to impact the Thames Basin Heaths SPA is provided at Section 6.

Habitats

Impact assessment

- 5.5 All of the plant species and assemblages of plant species found within the site are common and widespread throughout much of lowland Britain and are typical of a site of this type. Notwithstanding this, hedgerow H2 is likely to be Important, and this and H1 are an HPI on the basis that they contain greater than 80% native species. The presence and extent of an impact on the hedges due to the proposed development is a material consideration for the local planning authority when determining the planning application. In this instance all the

⁹ CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester.



hedgerows will be retained. The only direct impact is the removal of part of H2 to allow the creation of the access into the site from Reading Road. Given that the majority of the site's hedgerow resource would be retained, this impact is only significant at the site level.

- 5.6 The only other habitat with an elevated conservation status are four veteran tree; T39 (lime), T50 (oak), T56 (oak) and T72 (oak). Veteran trees are identified by the government as an irreplaceable habitat and are afforded a high level of policy protection in the NPPF. The ecological value of these trees is therefore assessed to be significant at the local e.g. parish level, as a result. In accordance with the mitigation hierarchy this tree will be retained within the proposed development.
- 5.7 None of the other habitats is afforded legal protection or is identified as having an elevated conservation status above the background. Whilst a suite of 'indicator' species was recorded within the neutral grassland, it is not considered to be notably diverse and is not an uncommon type or likely to meet the criteria for local wildlife site status. Some areas also contain a high proportion of non-native *Canada golden*. On this basis this, and the other habitats, are assessed to have intrinsic value at the level of the site only and the loss of any of these habitats is unlikely to result in an impact that is of significance at above the site level.

Mitigation

- 5.8 Other than the statutory requirement to deliver a 10% net gain in biodiversity as part of the development, no specific mitigation for the impact of the proposed development on the existing habitats is assessed to be required

Reptiles

Impact assessment

- 5.9 Grass snake, which is a Species of Principal Importance (SPI), was the only species of reptile recorded during the survey. Whilst no adult animals were recorded, the presence of juvenile grass snake confirms that the site supports at least a 'low' population of this species.
- 5.10 All reptile species are afforded (as a minimum) protection from killing and injury under the Wildlife and Countryside Act 1981 (as amended) and reasonable effort needs to be made to ensure the construction of the proposed development does not result in such an offence occurring. Notwithstanding this, this species remains relatively common and widespread in southern Britain, and the impact of the development on grass snake is not likely to be significant above the site level, as a result.



Mitigation

- 5.11 As only low numbers of grass snake were recorded within the site, a standard trapping and translocation exercise is likely to be disproportionately costly and of only limited benefit. As such, to ensure reasonable steps are taken to prevent a grass snake being killed or injured during the construction of the proposed development, a precautionary approach to site clearance would instead be recommended. This would involve cutting the vegetation down to 150mm in all areas that will be directly affected by the development. Following this, these areas should be left for a minimum of 24 hours during which the weather conditions are suitable for grass snake to be active, to allow any that might be present to relocate of their own accord. These conditions are generally taken to be a temperature above 9°C and without heavy and/or continuous rainfall. Following this, the vegetation should be cut again and maintained at ground level to reduce risk of reptiles re-entering the area.
- 5.12 In addition, features in which grass snakes could be sheltering should also be destructively searched following the initial vegetation clearance. This involves piles of brash and logs being carefully dismantled and removed under direct supervision of an ecologist. Grass snake is a highly mobile species and typically moves away when disturbed during this process. If any remain, however, they can be captured and relocated to an undisturbed part of the site, by the supervising ecologist.
- 5.13 Grass snake feeds primarily on amphibians. Whilst the development would result in the removal of two relatively small existing ponds, a SuDS basin is required as part of the drainage strategy which can be engineered to contain standing water. This would compensate for the ponds removed and should also increase the amount of pond habitat within the site and the opportunities for amphibians to breed. The overall impact of the proposal on grass snake should therefore be neutral at the site level, with no significant impact above this.

Bats – static detector survey

Impact assessment

- 5.14 Five species of bat were detected within the site during the remote detector surveys, together with registrations of bats from the *Myotis* and *Plecotus* genera and also ‘big bats’ from the *Nyctalus* or *Eptesicus* genera. Of the species confirmed, soprano pipistrelle, barbastelle and noctule are an SPI. Overall, the site is assessed as being of value at up to the local e.g. parish, level for bats due to the mix of species recorded. It is unlikely to be of greater value on the basis that the habitats are assessed as being of low suitability for bat foraging, the assemblage is unlikely to be significantly different from much of the surrounding countryside. Notwithstanding this, the removal of much of the existing semi-natural habitats due to the proposed development is likely to reduce the site’s value for foraging. The



proposed SuDS basin, if designed to retain standing water should though, compensate for some of this impact. Overall, the impact of the proposal on bat activity is likely to be significant at the site level only.

Mitigation

- 5.15 No external lighting is proposed as part of the current application. If this changes as part of the detailed design at the reserve matters stage, in order to maximise the scope for bats to continue to commute through the site and to access the proposed SuDS basin, it would be recommended to design a lighting scheme for the site that is sensitive to bats.
- 5.16 There is no legal requirement to provide lighting within a development and so in accordance with the ecological mitigation hierarchy, the first option should be to avoid entirely the installation of artificial lighting. If the installation of external lighting is unavoidable, the lighting scheme, as demonstrated through the production of vertical and horizontal lux contour maps, should show that it will not generate greater than 0.5lux at the base of any of the site boundaries or existing tall (>2m), linear vegetation. Furthermore, bollard lighting should be avoided, and columns and/or solar waymarkers (with a 'bat cap') used in preference. Fixtures should have no or a very low UV component and produce light with a low colour temperature of 2700k. In addition, external lighting on new buildings should also be sensor controlled (e.g. passive infrared) so that it is only illuminated when required.
- 5.17 Case studies in Warwickshire have shown that red light is preferable when minimising the impact on bats and is readily accepted by residents once they understand the reason for this decision. The potential use of this should therefore be investigated at the detailed design stage.

Breeding birds

Impact assessment

- 5.18 Of the species recorded song thrush and starling are a Species of Principle Importance (SPI). A further three species are on the Red List of Birds of Conservation Concern¹⁰ and a seven are on the Amber list. The site did not appear to support any agricultural specialist such as skylark or yellowhammer, which is likely due to the restricted field sizes within the site and their current uses.
- 5.19 Overall, and notwithstanding the species identified above that have an elevated conservation status, the assemblage of bird species recorded is considered to be in keeping with the site's urban fringe location and the habitats present, with no particularly rare or

¹⁰ Stanbury, A., et al. (2021). *The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain*. British Birds 114: 723-747.



notable species recorded. Furthermore, many or all of the species would be expected to be present in the wider countryside and the site's value as a resource for breeding birds is therefore assessed to be significant at the local level only.

- 5.20 The proposed development would result in much of the site value to birds being lost, due to the removal of the scrub and unmanaged grassland habitats, and construction of gardens, roads, buildings and other infrastructure. Whilst some bird species are a common feature of sub-urban environments and the likely creation of a large area of standing open water as part of the SuDS scheme should represent a habitat that is of value to a number of species, including some which may not currently utilise the site; the overall effect (prior to any mitigation) is likely to be negative and of significance at up to the local level.

Mitigation

- 5.21 All wild birds and their active nests, eggs and young are protected from damage or destruction under the Wildlife and Countryside Side Act 1918 (as amended). In order to avoid legislative constraints relating to nesting birds, it is recommended to carry out any clearance works, such as vegetation removal and soil stripping, outside the peak bird nesting season, which typically runs from mid-February to August inclusive, although some bird species will nest all year-round if conditions are suitable. If the work is programmed for during the peak nesting period, a prior survey by a suitably experienced ecologist is recommended to identify if any nesting constraints are present at that time. If an active nest is identified within an area to be affected by any works, it is likely that it would have to remain in situ and unaffected until such time as a re-survey confirmed that it was no longer in active use, at which point it is likely that it could be removed.

Other fauna

- 5.22 No other protected or notable fauna or evidence of such fauna, has been recorded. In particular, no evidence of badgers was found. In addition, the survey for great crested newts indicates that this species is unlikely to be present on the site. Similarly, the buildings were assessed to have negligible potential to support roosting bats.



6.0 SHADOW HABITATS REGULATION ASSESSMENT

Introduction

6.1 As detailed at section 2.1, the site is within 5km of the Thames Basin Heaths SPA (and SSSI). The protection afforded to this designation under the Conservation of Habitats and Species Regulations 2017 (as amended) means that the competent authority, in this instance Wokingham Borough Council (WBC), are required to carry out an assessment of the scope for the proposal, either individually or in combination with other plans or projects, to have a significant effect on the designation if permitted. If such an effect is likely, WBC are required to undertake an Appropriate Assessment (AA) of the proposal to assess whether it could have a negative effect on the integrity of the designation and whether mitigation could be employed to prevent this or reduce it to a non-significant level.

6.2 Policy CP8 of the adopted WBC Core Strategy states –

CP8 - Thames Basin Heaths Special Protection Area Development which alone or in combination is likely to have a significant effects on the Thames Basin Heaths Special Protection Area will be required to demonstrate that adequate measures to avoid and mitigate any potential adverse effects are delivered.

6.3 In addition, Policy NE3 of the Wokingham Borough Local Plan Update states –

Policy NE3: Thames Basin Heaths Special Protection Area

1. *Development proposals, which either alone or in combination with other plans or projects, are likely to have a significant adverse effect on the ecological integrity of the Thames Basin Heaths Special Protection Area (SPA) without appropriate avoidance and mitigation measures will be refused.*
2. *Development proposals that are likely to have a significant adverse effect on the integrity of the SPA must demonstrate that adequate measures will be put in place to avoid or mitigate any such effects. Such measures must be agreed with the council and Natural England. To assist the council in carrying out a Habitats Regulations Assessment, the applicant will be required to provide such information as the council may reasonably require for the purpose of the assessment. Development proposals for larger residential development may need to undertake an air quality assessment of the likely significant effects on the SPA and other habitats sites. Applications for non-residential development will be considered on a case by case basis.*

6.4 The site's location within 5km of the Thames Basin Heaths means that it can be assumed that the proposed development is likely to give rise to a significant effect on the designation.



Mitigation to prevent the development having an adverse impact on the integrity of the designation is therefore required as part of the Appropriate Assessment.

Mitigation

- 6.5 WBC provide information on their framework approach to the provision of mitigation for impact on the Thames Basin Heaths SPA. This focuses on the development making a contribution towards the provision of off-site Suitable Alternative Natural Greenspace (SANG) and the Strategic Access, Management and Maintenance (SAMM) of the designation itself as part of the S106 agreement for a development. The adopted Core Strategy states –

“4.49 The Appropriate Assessment indicates that to ensure that development avoids its likely significant impact upon the SPA, the following principles will apply:

- i) Dwellinghouses and other residential development (including staff accommodation in use class C2) will need to provide avoidance and mitigation measures where:*
 - a. The proposal involves the provision of one or more net additional residential unit and is within 5km (linear) of the SPA. Contributions to on site SPA access management measures and monitoring in line with the Delivery Framework will be required together with provision of SANG at a minimum of 8ha/1,000 population (calculated at a rate of 2.4 persons per household). This monitoring includes the effectiveness of the SANG;*
 - b. The proposal provides 50 or more residential units within 7km (linear). In this case, the proposal will be individually assessed for whether a significant effect upon the SPA is likely either on its own or in combination with other plans or projects around the site. Where avoidance and mitigation measures are required to address likely significant effects, this is likely to involve SANG together with funding towards monitoring the effectiveness of the solution agreed;*
 - c. There is a 400m exclusion zone from the SPA for any net additional dwellings due to the inability to avoid likely significant effects upon the SPA.*
- ii) SANG to be provided and maintained in perpetuity in line with the quality and quantity standards advocated by Natural England. The size and location of SANG contributes towards the delivery of healthy communities in line with advice from the Department of Health and NICE. In order to ensure access to avoidance sites in perpetuity, the Council's preference is for the authority to own any SANG. Where SANG also meets the definition of open space (see Appendix 4), it can also count towards this provision i.e. at least 1 ha/1,000 of the SANG could also contribute towards the Natural Greenspace requirement and vice versa;”*



6.6 In addition, policy EN3 of the emerging Local Plan Update states -

“2. Development proposals that are likely to have a significant adverse effect on the integrity of the SPA must demonstrate that adequate measures will be put in place to avoid or mitigate any such effects. Such measures must be agreed with the council and Natural England...”

5. Within the 400m-5km and 5km-7km zone, development proposals for a net increase in dwellings will be supported which secure the SANG and SAMM standards set out below...

SAMM contributions

7. A developer contribution will be made towards the SAMM Project for each net additional dwelling. This will provide an SPA wide wardening and education service and monitor the effectiveness of the avoidance and mitigation measures and visitor pressure on the SPA.”

6.7 With a contribution secured towards the provision of both SANG and SAMM that is tied to the granting of the planning consent (such as through a S106 agreement), it should be possible for WBC, when undertaking the HRA and AA for the proposed development, to conclude that it is unlikely to have a significant effect on the integrity of the Thames Basin Heaths SPA.



7.0 ADDITIONAL RECOMMENDATIONS

7.1 Although not required for legislative compliance, the NPPF¹¹ at paragraph 180(d) states '*opportunities to improve biodiversity in and around developments should be integrated as part of their design*'. The following enhancements are therefore recommended to meet this policy requirement:

- 25% of new units should incorporate either a bird box or bat box.
- 5No insect boxes/habitats should be installed within the development.
- Each enclosed garden should include at least one gap at the base, 13x13cm in diameter, to allow hedgehogs to permeate the development.

¹¹ Ministry of Housing, Communities and Local Government (last revision September 2023). National Planning Policy Framework.



- Site boundary
- X Reptile refugia
- X Grass snake recorded

Sam Watson Ecology
45 Bull Street
Aston
Bampton
OX18 2DT
Samwatsonecology@gmail.com
07971 555192



SWE

Project - Land at Reading Road, Arborfield		
Client - Dandara Southern Ltd and Elstree Land		
Title - Reptile survey		
Date - October 24	Drawing - 0078-2210-1	Rev -



- Site boundary
- Pond sampled for eDNA
- Insufficient water to sample or not accessible

Sam Watson Ecology
45 Bull Street
Aston
Bamptton
OX18 2DT

Samwatsonecology@gmail.com
07971 555192


SWE

Project - Land at Reading Road, Arborfield		
Client - Dandara Southern Ltd and Elstree Land		
Title - Great crested newt survey		
Date - October 24	Drawing - 0078-2210-2	Rev -



	Site boundary		Willow scrub		Hedgerow - intact		Target note, with text reference
	Other, neutral grassland		Tall ruderal		Hedgerow - defunct		Seasonally wet ditch
	Modified grassland		Buildings/structure		Hedgerow - ornamental		Hardstanding
	Bramble scrub		Pond		Isolated tree		Disturbed ground/allotment
	Mixed scrub		Swamp		Fence		Location of static bat detector

Sam Watson Ecology 45 Bull Street Aston Bampton OX18 2DT Samwatsonecology@gmail.com 07971 555192	
Project - Land at Reading Road, Arborfield	
Client - Dandara Southern Ltd and Elstree Land	
Title - Habitat map	
Date - November 24	Drawing - 0078-2210-3
Rev -	



APPENDIX 1

Common Name	Scientific Name
Agrimony	<i>Agrimonia eupatoria</i>
American willowherb	<i>Epilobium ciliatum</i>
Ash	<i>Fraxinus excelsior</i>
Blackthorn	<i>Prunus spinosa</i>
Bramble	<i>Rubus fruticosus</i>
Branched bur-reed	<i>Sparganium erectum</i>
Bristly ox-tongue	<i>Helminthotheca echioides</i>
Broadleaved dock	<i>Rumex obtusifolius</i>
Buddleia	<i>Buddleja davidii</i>
Bush vetch	<i>Vicia sepium</i>
Canadian fleabane	<i>Conyza canadensis</i>
Canadian goldenrod	<i>Solidago canadensis</i>
Cock's-foot	<i>Dactylis glomerata</i>
Common bent	<i>Agrostis capillaris</i>
Common fleabane	<i>Pulicaria dysenterica</i>
Common reed	<i>Phragmites australis</i>
Common vetch	<i>Vicia sativa</i>
Creeping buttercup	<i>Ranunculus repens</i>
Creeping cinquefoil	<i>Potentilla reptans</i>
Creeping thistle	<i>Cirsium arvense</i>
Cut-leaved cranesbill	<i>Geranium dissectum</i>
Dahlia	<i>Dahlia pinnata</i>
Daisy	<i>Bellis perennis</i>
Dandelion	<i>Taraxacum officinale</i>
Dog rose	<i>Rosa canina</i>
Duckweed	<i>Lemna minor</i>
Elder	<i>Sambucus nigra</i>
Elm	<i>Ulmus procera</i>
Enchanter's nightshade	<i>Circaea lutetiana</i>
False fox sedge	<i>Carex otrubae</i>
False oat-grass	<i>Arrhenatherum elatius</i>
Field maple	<i>Acer campestre</i>
Field woodrush	<i>Luzula campestris</i>
Foxglove	<i>Digitalis purpurea</i>
Gallant soldier	<i>Galinsoga parviflora</i>
Goat willow	<i>Salix caprea</i>



Common Name	Scientific Name
Greater bird's-foot trefoil	<i>Lotus pedunculatus</i>
Greater pond sedge	<i>Carex riparia</i>
Hairy tare	<i>Vicia hirsuta</i>
Hazel	<i>Corylus avellana</i>
Hemlock	<i>Conium maculatum</i>
Hogweed	<i>Heracleum sphondylium</i>
Hornbeam	<i>Carpinus betulus</i>
Horse chestnut	<i>Aesculus hippocastanum</i>
Hybrid lime	<i>Tilia × europaea</i>
Ivy-leaved speedwell	<i>Veronica hederifolia</i>
Lesser stitchwort	<i>Stellaria graminea</i>
Lesser trefoil	<i>Trifolium dubium</i>
Male fern	<i>Dryopteris filix-mas</i>
Meadow foxtail	<i>Alopecurus pratensis</i>
Meadow vetchling	<i>Lathyrus pratensis</i>
Mugwort	<i>Artemisia vulgaris</i>
Nettle	<i>Urtica dioica</i>
Oak	<i>Quercus robur</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>
Pendulous sedge	<i>Carex pendula</i>
Perennial ryegrass	<i>Lolium perenne</i>
Ragwort	<i>Jacobaea vulgaris</i>
Red dead-nettle	<i>Lamium purpureum</i>
Red fescue	<i>Festuca rubra</i>
Reedmace	<i>Typha latifolia</i>
Remote sedge	<i>Carex remota</i>
Scots pine	<i>Pinus sylvestris</i>
Silver birch	<i>Betula pendula</i>
Smooth meadow grass	<i>Poa pratensis</i>
Soft rush	<i>Juncus effusus</i>
Spear thistle	<i>Cirsium vulgare</i>
Sweet vernal grass	<i>Anthoxanthum odoratum</i>
Sycamore	<i>Acer pseudoplatanus</i>
Tall fescue	<i>Festuca arundinacea</i>
Teasel	<i>Dipsacus fullonum</i>
Timothy	<i>Phleum pratense</i>
Turkey oak	<i>Quercus cerris</i>
Water mint	<i>Mentha aquatica</i>



Common Name	Scientific Name
White clover	<i>Trifolium repens</i>
Wood sedge	<i>Carex sylvatica</i>
Yarrow	<i>Achillea millefolium</i>
Yorkshire fog	<i>Holcus lanatus</i>



Appendix 2

		Date	Common pipistrelle	Soprano pipistrelle	Nathusius' pipistrelle	<i>Myotis</i> species	Noctule	NyctEpte	<i>Plecotus</i> species	Barbastelle	Unidentified bat
SUMMER	West detector	18/07/2024	34	36			5				
		19/07/2024	30	24			34	2			
		20/07/2024	34	12			9		9		
		21/07/2024	3	3			1		2		1
		22/07/2024	36	8			3		1		
	East detector	18/07/2024	74	15		2	11	3	3		
		19/07/2024	68	17		3	16	1			
		20/07/2024	99	11		6	30	4	2		
		21/07/2024	43	14			1		4		1
		22/07/2024	53	16	1		23	1	6		
AUTUMN	West detector	09/09/2024	43	17		5	8		2		1
		11/09/2024		2					1		
		13/09/2024	4	3		2				1	
		14/09/2024	18	4	1	6	1			1	
		15/09/2024	15	1					1	1	
	East detector	09/09/2024	1				1		3		
		11/09/2024		2							
		13/09/2024	3	1			1		2		
		14/09/2024	3	1		3			3	1	
		15/09/2024	16	5		3	1		4		



Appendix 3

eDNA Technical Report



Mr. Sam Watson
 Sam Watson Ecology
 45 Bull Street
 Aston
 Bampton

OX18 2DT

T: 07971 555192

E: samwatsonecology@gmail.com

Report Reference	R0000606
Report Date	13 Jun 2024
Reported By	rwarre

Dispatch Order Reference		P0000435					
Site Name		1					
Site Location		Arborfield					
Barcode	Received Date	Sampled Date	Sample Check	Degradation Check	Inhibition Check	Result	Positive Replicates
GCN005945	11/06/2024	10/06/2024	PASS	PASS	PASS	NEGATIVE	0 out of 12

Dispatch Order Reference		P0000435					
Site Name		2					
Site Location		Arborfield					
Barcode	Received Date	Sampled Date	Sample Check	Degradation Check	Inhibition Check	Result	Positive Replicates
GCN005883	11/06/2024	10/06/2024	PASS	PASS	PASS	NEGATIVE	0 out of 12

eDNA Technical Report



Mr. Sam Watson
Sam Watson Ecology
45 Bull Street
Aston
Bampton

OX18 2DT

T: 07971 555192

E: samwatson@ecology@gmail.com

Report Reference	R0000671
Report Date	09 Jul 2024
Reported By	akarlsson

Dispatch Order Reference		P0000498					
Site Name		P3					
Site Location		Arborfield					
Barcode	Received Date	Sampled Date	Sample Check	Degradation Check	Inhibition Check	Result	Positive Replicates
GCN009036	25/06/2024	25/06/2024	PASS	PASS	PASS	NEGATIVE	0 out of 12

eDNA Technical Report



SUMMARY

The water samples listed in the tables above were submitted to Cellmark for environmental DNA (eDNA) testing for the presence of Great Crested Newt (GCN; *Triturus cristatus*) DNA. The laboratory testing was carried out in compliance with the guidelines described in [WC1067: Analytical and methodological development for improved surveillance of The Great Crested Newt \(version 1.1\)](#)

INTERPRETATION OF THE RESULTS

Barcode	Each kit is given a unique sample barcode. A kit and the six sample tubes contained within it are labelled with the same sample barcode. This allows Cellmark to track where each kit has been sent and to track the samples through the laboratory once they have been returned.
Site Name	The name of the sampling site.
OS Reference	Ordnance Survey grid reference: the location of the pond.
Sample Check	Upon receipt in the laboratory, the 6 sample tubes are scored for sample volume, leakage, damage and for the presence of sediment, algae and other debris within the sample tubes. They are scored as 'PASS' or 'FAIL'. Samples that fail at this stage may not be suitable for further processing.
Degradation Check	A control marker is spiked into the sample tubes during the kit manufacturing process. This marker is analysed for degradation and reported as 'DEGRADED' or 'PASS'.
Inhibition Check	Some substances (inhibitors) can cause the GCN assay to give a negative result despite the presence of GCN DNA. An assay is performed to determine whether inhibitors are present in the eDNA extract. If inhibition is detected, steps are taken to mitigate the effects on the GCN detection assay. The degradation assay is reported as 'INHIBITED' or 'PASS'.
Result	Results are reported as 'POSITIVE', 'NEGATIVE' or 'INCONCLUSIVE'. A positive result indicates that there is evidence that Great Crested Newts are present or have recently been present in the pond. If no GCN DNA is detected, a negative result is reported. The results are deemed inconclusive if we do not detect the presence of GCN DNA and there is an indication that something in the sample is interfering with the analysis (inhibition or degradation).
Positive Replicates	A single eDNA extract is produced for each pond. The extract is then analysed to detect the presence of GCN DNA. A total of 12 replicates of this analysis is performed per eDNA extract. If at least 1 of the replicates is positive for the presence of GCN DNA, the pond is declared positive for the presence of Great Crested Newts.

METHODOLOGY

Upon arrival in the laboratory, the 6 sample tubes are checked for sample volume, leakage and any other damage. The samples are also inspected for macroscopic debris. Based on the outcome of this inspection, the decision is made as to whether the sample is suitable for further processing. Samples that have passed this inspection step are centrifuged. The resulting pellets (containing the eDNA) from each tube are then combined. The eDNA is then isolated (extracted) from the combined pellet.

Inhibitors, more specifically PCR inhibitors, are substances in the eDNA sample which may be co-isolated with the DNA and which interfere with eDNA detection assays. All eDNA extracts are tested for the presence of inhibitors. When a sample has been shown to be inhibited and the results of the GCN detection assay are negative, we cannot be sure whether the sample is truly negative for GCN DNA or that the inhibitors have prevented the GCN assay from working correctly. In this scenario, the result is reported as inconclusive.

eDNA Technical Report



The ability to detect a control marker that has been spiked into the sample tubes during the kit manufacturing process is also tested. If this marker cannot be detected, it suggests that that DNA in the sample has been degraded. Some possible causes of degradation can be the conditions under which the sample has been stored (eg exposure to high temperatures or UV from excessive sunlight) or contamination with substances that destroy DNA. If the control DNA is not detected but the GCN detection assay is positive for GCN, then the sample is reported as positive for GCN DNA. However, if neither the control DNA nor GCN DNA is detected, the sample is reported as inconclusive because we cannot know whether there was any GCN DNA present in the sample but it was degraded prior to analysis.

The GCN detection assay targets a portion of the GCN mitochondrial DNA. This assay is detailed in WC1067 Analytical and Methodological Development for Improved Surveillance of The Great Crested Newt (version 1.1). This assay specifically detects GCN DNA. If GCN DNA is detected in at least 1 of the 12 replicate GCN detection assays, the sample is reported as positive for the presence of GCN. A technique called quantitative PCR (qPCR) is used in the inhibition, degradation and GCN detection assays to detect specific regions of DNA. Positive and negative controls are used in each of the assays and these have to give the expected results in order for the sample to be declared positive or negative for GCN DNA.

Cellmark participates in the FERA proficiency testing scheme and achieved 100% in the 2021 test. Driven by quality, Cellmark has held international ISO quality certification since 1990. Cellmark provides a range of laboratory testing services accredited to ISO 17025 and although delivered to the same exacting quality standards, Cellmark's eDNA service is not yet included on the scope of its ISO 17025 accreditation. Cellmark is certified to ISO 9001, ISO 14001 and to ISO 27001.



Appendix 4

Species		Breeding Status	Conservation status
Common name	Scientific name		
Blackbird	<i>Turdus merula</i>	Confirmed	
Blackcap	<i>Sylvia atricapilla</i>	Probable	
Blue tit	<i>Cyanistes caeruleus</i>	Confirmed	
Carrion crow	<i>Corvus corone</i>	Possible	
Chaffinch	<i>Fringilla coelebs</i>	Probable	
Chiffchaff	<i>Phylloscopus collybita</i>	Possible	
Coal tit	<i>Periparus ater</i>	Possible	
Dunnoek	<i>Prunella modularis</i>	Confirmed	BoCC Amber List
Goldfinch	<i>Carduelis carduelis</i>	Probable	
Great tit	<i>Parus major</i>	Confirmed	
Greenfinch	<i>Carduelis chloris</i>	Probable	BoCC Red List
House sparrow	<i>Passer domesticus</i>	Probable	BoCC Red List
Jackdaw	<i>Corvus monedula</i>	Confirmed	
Jay	<i>Garrulus glandarius</i>	Probable	
Long-tailed tit	<i>Aegithalos caudatus</i>	Confirmed	
Magpie	<i>Pica pica</i>	Probable	
Pheasant	<i>Phasianus colchicus</i>	Possible	
Robin	<i>Erithacus rubecula</i>	Confirmed	
Sedge warbler	<i>Acrocephalus schoenobaenus</i>	Probable	BoCC Amber
Song thrush	<i>Turdus philomelos</i>	Probable	BoCC Amber; SPI
Starling	<i>Sturnus vulgaris</i>	Probable	BoCC Red List; SPI
Swallow	<i>Hirundp rustica</i>	Possible	
Treecreeper	<i>Certhia familiaris</i>	Probable	
Whitethroat	<i>Sylvia communis</i>	Confirmed	BoCC Amber
Willow warbler	<i>Phylloscopus trochilus</i>	Possible	BoCC Amber
Woodpigeon	<i>Columba palumbus</i>	Confirmed	BoCC Amber
Wren	<i>Troglodytes troglodytes</i>	Confirmed	BoCC Amber



Photos





