RUSCOTE AVENUE – SITE 2

Ecological Assessment

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Ruscote Avenue – Site 2
Ecological Assessment
Final v2
August 2021

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Quality Management

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EXECUTIVE SUMMARY

- RPS was commissioned by Jacobs Douwe Egberts (JDE) to undertake an Ecological Assessment (EA) of an area of land off Ruscote Avenue, Banbury, Oxfordshire.
- An initial EA and protected species surveys of the site were undertaken by RPS in 2019, which comprised a desk study, Phase 1 Habitat Survey and details of further survey work undertaken to determine the use and value of the site for protected and notable species, details for recommended mitigation measures as appropriate, and appropriate biodiversity enhancements in line with national and local planning policy.
- Due to the length of time elapsed since the original surveys, an additional walkover of the site was undertaken in August 2021 to identify any changes to the ecological features previously identified within the site and in areas that could be affected by the proposals.
- The proposals for the site include the demolition of the existing vacant office building to be replaced with a new surface-level car park providing 215 replacement car parking spaces, cycle parking and associated landscaping. The proposals also include the recladding of the main entrance and reception of a computer suite building.
- One statutory designated site is located 0.88 km north west of the site: Neithrop Field Cutting, which is designated as a Site of Special Scientific Interest (SSSI) for its important geological features.
- The site was approximately 1.15 ha in size and comprised three buildings (a disused five storey office building, a smaller disused computer suite and a security hut), with areas of hardstanding, amenity grassland, introduced shrub and scattered broadleaved and coniferous trees.
- The Preliminary Roost Assessment (PRA) (RPS, 2019) identified that the office block (B1) had moderate potential to support roosting bats. The smaller, single-storey computer suite (B2) was assessed as having low roosting potential. The security hut (B3) did not have any features suitable to support roosting bats.
- Further surveys for bats were undertaken in 2019, comprising two emergence surveys on the disused office block (B1) (at ground- and roof-level) and one emergence survey on the adjoining computer suite (B2). No bats were seen to emerge or re-enter the buildings during the bat surveys and activity levels across the site were generally very low.
- The habitats on site had not changed significantly since the original survey in 2019 and the site was found to continue to provide suitable habitat for breeding birds and roosting bats.
- It is recommended that an additional bat emergence/re-entry survey is undertaken on both the office block (B1) and computer suite (B2) to ensure the continued absence of bats using these features.
- Standard pollution control measures are recommended to ensure contaminants are contained and removed from within construction areas and prevented from reaching sensitive receptors within the site or near to it, such as watercourses.
- A description of the potential effects of the proposed development on the habitats and species identified as being present or potentially present are described in this report followed by recommendations for mitigation measures to ensure such effects are avoided.
- Measures to protect and enhance the site are also provided, including using appropriate management to enhance the value of retained boundaries.

Contents

Tables

Figures

Appendices

1 INTRODUCTION

1.1 Purpose and Scope of this Report

1.1.1 RPS was commissioned by Jacobs Douwe Egberts (JDE) to undertake an Ecological Assessment (EA) of an area of land off Ruscote Avenue, Banbury, Oxfordshire.

1.1.2 An initial EA and protected species surveys of the site were undertaken by RPS in 2019, which comprised a desk study, Phase 1 Habitat Survey and details of further survey work undertaken to determine the use and value of the site for protected and notable species, details for recommended mitigation measures as appropriate, and appropriate biodiversity enhancements in line with national and local planning policy.

1.1.3 Due to the length of time elapsed since the original surveys, an additional walkover of the site was undertaken in August 2021 to identify any changes to the ecological features previously identified within the site and in areas that could be affected by the proposals.

1.1.4 The EA aimed to:

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

1.1.5 This report pertains to these results only; recommendations included within this report are the professional opinion of an experienced ecologist and therefore the view of RPS.

1.1.6 The surveys and desk-based assessments undertaken as part of this review and subsequent report including the Ecological Appraisal Notes are prepared in accordance with the British Standard for Biodiversity Code of Practice for Planning and Development (BS42020:2013).

1.2 Study Area

1.2.1 The site was located approximately one mile north east of Banbury Town Centre, Oxfordshire. The site is approximately 1.15 ha in size. The National Grid coordinates for the centre of the site are SP 450 416.

1.2.2 The site formed part of the wider JDE site, comprising a vacant office building, disused computer suite, car parking and recreational facilities. The office block became vacant in 2015 however the upper floors of the building became vacant much earlier, in 2012.

1.2.3 The surrounding area comprises industrial factories, warehouses and a retail park.

1.2.4 The site location is shown on Figure 3.1. Aerial imaging available via Google Earth Pro was also reviewed to assess the site in relation to its context in the wider landscape.

1.3 Development Proposals

1.3.1 The proposals for this development involve the demolition of a disused five storey office block and removal of areas of amenity grassland, trees and shrubs, in order to provide new surface level car parking spaces, cycle parking and landscaping.

1.3.2 The adjoining computer suite will have a new elevation which will include recladding the exterior of the building.

1.3.3 This application is to provide replacement car parking for JDE and is to be followed in due course by an application for the redevelopment of the existing JDE car park site to the south which will be submitted under two separate applications (Site 3 and Site 4).

1.4 Legislation and Policy

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

1.4.2 The relevant articles of legislation are:

- The National Planning Policy Framework (NPPF, 2021);
- ODPM Circular 06/2005 (retained as Technical Guidance on NPPF 2021);
- Local planning policies (from Adopted Cherwell Local Plan 2011-2031 (Part 1) and saved policies from the Cherwell Local Plan (1996);
- The Conservation of Habitats and Species Regulations 2020 (EU Exit Amendment);
- The Wildlife and Countryside Act 1981 (as amended);
- The Protection of Badgers Act 1992;
- The Countryside and Rights of Way Act 2000;
- The Hedgerow Regulations 1997; and
- The Natural Environment and Rural Communities Act 2006; and
- National / Local Biodiversity Action Plan for Oxfordshire.

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

2 METHODS

2.1 Desk Study

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

2.1.2 Locations of statutory designated sites were accessed via the government 'MAGIC' website (MagicMap, 2021).

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

2.2 Ecological Appraisal

2.2.1 The Ecological Appraisal comprised a Phase 1 Habitat survey and a scoping survey for protected species and other species of conservation concern which could present a constraint to development.

2.2.2 The original Phase 1 Habitat Survey and bat roost assessment was undertaken on 4th April 2019 by Sam Barker GradCIEEM, an RPS Ecologist with 2 years' experience and assisted by Annie Davies GradCIEEM, an RPS Assistant Ecologist.

2.2.3 An additional walkover of the site was undertaken on 13th August 2021 by Katy Thomas ACIEEM, a Senior Ecologist employed by RPS.

2.2.4 The surveys followed the standard Phase 1 survey methodology set out by the Joint Nature Conservation Committee (JNCC) and outlined in the Handbook for Phase 1 Surveys; a technique for environmental audit (JNCC, 2016).

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

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

Preliminary Bat Roost Assessment

2.2.7 An assessment of the suitability of the vacant office block for bat roosting potential was undertaken at the same time as the 2019 Phase 1 Habitat Survey. An additional assessment of the computer suite was undertaken on 20th June 2019 by Katy Thomas.

2.2.8 The condition of the buildings was reviewed during the walkover survey undertaken in August 2021.

2.2.9 The assessments followed the guidelines published by the Bat Conservation Trust (BCT, 2016).

2.2.10 A thorough, ground level inspection of the exterior of the buildings and a roof level inspection of the office block was carried out and the features of the building listed below were noted:

- Type;
- Age;
- Wall construction, in particular the type of material used;
- Form of the roof, in particular the presence of gable ends, hipped roofs etc. and the nature and condition of the roof; and
- The general condition of the building.

2.2.11 The interior of the building was accessed, where possible, and also inspected for evidence of bats using the building and the following noted:

- Bats themselves;
- Bat droppings that are dry and do not putrefy, but can crumble away to dust;
- Staining of access points used by bats to enter the structure; and
- Feeding remains such as moth and butterfly wings.

2.2.12 The above information would inform the potential for roost features to be present and identify potential bat access points and roost places and field signs of bats being present.

2.2.13 When suitable features were identified, they were inspected for signs indicating use or possible use by bats including tiny scratches, staining and flies around the entry points, bat droppings and feeding remains in, around and below entrances, distinctive smell of bats and the smoothing of surfaces around cavities.

2.2.14 The suitability of the buildings and trees for roosting bats was also assessed by examining the surrounding habitat. Important habitat features surrounding the structure which may influence bat roost potential include whether the structure is in a semi-rural or parkland location, its proximity to significant linear habitat features such as a watercourse, mature hedgerow, wooded lane or an area of woodland.

2.2.15 Guidance from the Bat Conservation Trust *Bat Survey: Good Practice Guidelines* (BCT, 2016) on the features of buildings and trees which correlate with their use by bats was considered. Table 2.1 is taken from the above guidance and describes the category of potential value to roosting bats.

2.2.16 Preliminary bat roost assessments of buildings can be carried out at any time of year; however, summer surveys are more likely to reveal signs of bat activity.

Table 2.1: Guidelines for assessing the potential suitability of proposed developments

Suitability	Description of Roosting Habitats	Commuting and foraging habitats
Negligible	A structure or tree with negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough features* to be used on a regular basis or by larger number of bats. A tree 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.	Habitat that could be used by small numbers of commuting bats such as gaps in a hedgerow or un-vegetated stream, but isolated. Suitable but isolated habitat that could be used by small numbers of foraging bats, such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their features* but unlikely to support a roost of high conservation status.	Continuous habitat connected to the wider landscape that could be used by bats for commuting and foraging, such as lines of trees

		and scrub or linked back gardens, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their features*.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting and foraging bats, such as river valleys, streams, hedgerows, line of trees, woodland edge, broadleaved woodlands, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

*space/size, shelter, protection, conditions, and surrounding habitat.

2.3 Bat Emergence Survey

2.3.1 The 2019 bat emergence surveys were carried out by the RPS Ecology Team: Louisa Medland CEcol MCIEEM Principal Ecologist; Katy Thomas; Sam Barker; Alex Powell GradCIEEM, Assistant Ecologist; Annie Davies; Sam Shephard, Assistant Ecologist; and Craig Smith, Assistant Ecologist.

2.3.2 Bat surveys were undertaken in accordance with the best practice guidelines and recommendations published by the Bat Conservation Trust in *Bat Survey: Good Practice Guidelines* (BCT, 2016).

2.3.3 As recommended by the BCT guidance, two dusk emergence surveys were undertaken on each the ground-level and roof-level of the office block (B1) and one dusk emergence survey was undertaken on the computer suite (B2).

2.3.4 The dusk emergence surveys were carried out in suitable weather conditions between May and August 2019.

2.3.5 Dusk emergence surveys commenced 15 minutes before sunset and continued until approximately two hours after sunset.

2.3.6 During each survey visit the building was continuously surveyed by up to four experienced ecologists and visual observations were made of the where bats emerged/re-entered and in what direction they were flying to or from. Behavioural observations were also recorded for any bats encountered on site or within the vicinity, including direction of flight and activity observed e.g. foraging or commuting.

2.3.7 Batlogger and Anabat bat detectors were used to detect echolocation calls from any bats emerging/entering the building. Recordings were made of any bat calls heard and these were analysed using BatExplorer and Analook software to identify the species present.

2.4 Impact Appraisal

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

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

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

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

2.5 Limitations

Desk Based Assessment

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

Survey

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

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

Accurate Lifespan of Ecological Data

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

3 RESULTS

3.1 Designated Sites

3.1.1 There was one statutory designated site within 2 km of the site; Neithrop Fields Cutting SSSI which was located 0.88 km from the site and is designated for its geological value. It is not designated for its nature conservation value.

3.1.2 There were no non-statutory sites located within the 2 km search radius of the site.

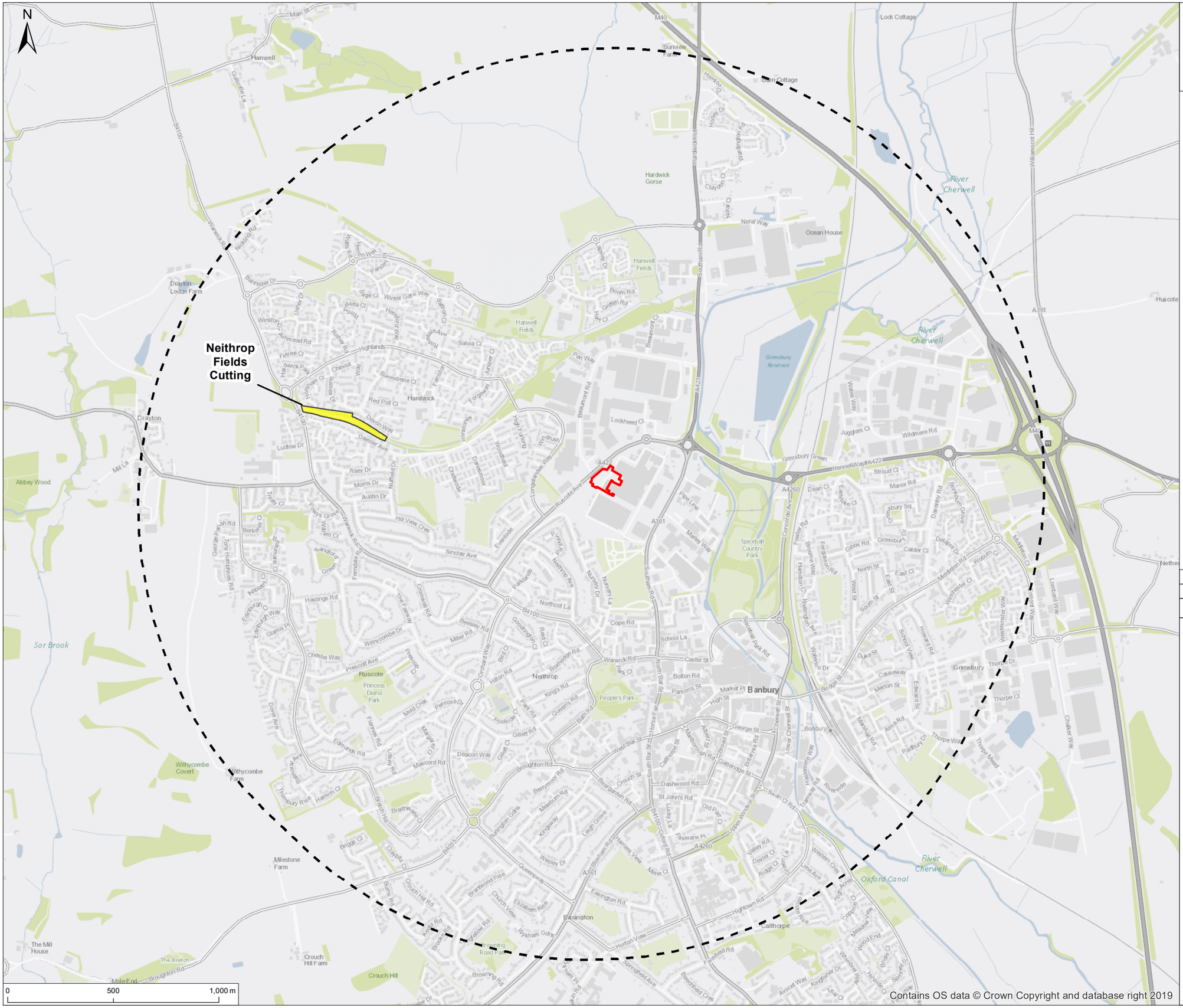
3.1.3 A summary of the site is provided in Table 3.1 below and its location is detailed in Figure 3.1.

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

Site name	Type	Approx. area (ha)	Interest Features	Distance from site (km)
Statutory Sites				
Neithrop Fields Cutting	SSSI	1.5	A key paleogeographic and stratigraphic locality	0.88

Abbreviations used in Table 3.1: SSSI: Site of Special Scientific Interest; ha: hectare.

Figure 3.1: Designated Sites within 2 km



Notes
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Legend

- Site boundary
- 2km Search Area
- Sites of Special Scientific Interest

Rev	Description	By	CB	Date

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Title Designated Sites Figure

Status	Drawn By	PM/Checked By
DRAFT	RN	LM
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Figure Number **3.1** Rev **04**

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3.2 Species

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

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

3.2.3 Any species recorded to a lower accuracy have the distances marked with an 'X'.

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

Common name	Scientific name	Nearest distance from site (km)	Year of most recent record	Conservation Status
		Flora		
Chives	*Allium schoenoprasum*	0.81	2015	NS
Wormwood	*Artemisia absinthium*	0.62	2015	Ox-RA
Slender Thistle	*Carduus tenuiflorus*	1.42	2017	Ox-RA
Marsh Willowherb	*Epilobium palustre*	0.70	2010	Ox-RA
Common Cudweed	*Filago vulgaris*	X	2015	NT
Wall Bedstraw	*Galium parisiense*	1.89	2018	NS
Bluebell	*Hyacinthoides non-scripta*	X	2016	WCA8
Prickly Poppy	*Papaver argemone*	1.40	2015	NS, VU
Hoary Plantain	*Plantago media*	0.74	2019	NT
Annual Pearlwort	*Sagina apetala subsp. apetala*	1.73	2016	Ox-SC
Ragged-Robin	*Silene flos-cuculi*	0.70	2019	NT
Lesser Chickweed	*Stellaria pallida*	1.02	2016	Ox-SC
Large-leaved Lime	*Tilia platyphyllos*	X	2015	NS
Common Valerian	*Common Valerian*	0.76	2015	NT
		Fish		
Brown/Sea Trout	*Salmo trutta*	0.87	2014	NERC S41
Brown Trout	*Salmo trutta subsp. fario*	0.94	2014	NERC S41
		Amphibians		
Common toad	*Bufo bufo*	1.12	2016	WCA5, NERC S41
Smooth newt	*Lissotriton vulgaris*	1.68	2012	WCA5
Common frog	*Rana temporaria*	0.87	2011	WCA5
Great crested newt	*Triturus cristatus*	1.62	2015	EPS, WCA5, NERC S41
		Reptiles		
Common Lizard	*Zootoca vivipara*	1.48	2016	WCA5, NERC 41
Grass Snake	*Natrix helvetica*	0.85	2017	WCA5, NERC 41
		Birds		
Lesser redpoll	*Acanthis cabaret*	X	2011	NERC S41, Red

Common sandpiper	*Actitis hypoleucos*	X	2011	Amber
Skylark	*Alauda arvensis*	1.36	2019	NERC S41, Red
Kingfisher	*Alcedo atthis*	1.56	2011	WCA1
Teal	*Anas crecca*	X	2011	Amber
Wigeon	*Anas penelope*	X	2011	Amber
Mallard	*Anas platyrhynchos*	X	2011	Amber
Greylag goose	*Anser anser*	0.40	2011	Amber
Meadow pipit	*Anthus pratensis*	X	2011	Amber
Swift	*Apus apus*	0.22	2019	Amber
Dunlin	*Calidris alpina*	X	2011	Amber
Ringed plover	*Charadrius hiaticula*	X	2011	Red
Black-headed gull	*Chroicocephalus ridibundus*	1.56	2011	Amber
Hawfinch	*Coccothraustes coccothraustes*	X	2011	Red
Stock dove	*Colomba oenas*	1.36	2019	Amber
Mute swan	*Cygnus olor*	1.74	2011	Amber
House martin	*Delichon urbicum*	1.68	2012	Amber
Yellowhammer	*Emberiza citrinella*	X	2011	NERC S41, Red
Reed bunting	*Emberiza schoeniclus*	X	2011	NERC S41, Amber
Peregrine	*Falco peregrinus*	X	2011	WCA1
Hobby	*Falco subbuteo*	X	2011	WCA1
Kestrel	*Falco tinnunculus*	1.36	2019	Amber
Pied flycatcher	*Ficedula hypoleuca*	X	2011	Red
Snipe	*Gallinago gallinago*	X	2011	Amber
Oystercatcher	*Haematopus ostralegus*	X	2011	Amber
Herring gull	*Larus argentatus*	X	2011	Red
Common gull	*Larus canus*	X	2011	Amber
Lesser black-backed gull	*Larus fuscus*	X	2011	Amber
Mediterranean gull	*Larus melanocephalus*	X	2011	Amber
Linnet	*Linaria cannabina*	1.63	2013	NERC S41, Red
Grasshopper warbler	*Locustella naevia*	X	2011	NERC S41, Red
Red kite	*Milvus milvus*	X	2011	WCA1
Grey wagtail	*Motacilla cinerea*	X	2011	Red
Yellow wagtail	*Motacilla flava*	1.36	2019	Red
Spotted flycatcher	*Muscicapa striata*	X	2011	NERC S41, Red
Curlew	*Numenius arquata*	X	2011	NERC S41, Red
House sparrow	*Passer domesticus*	0.70	2019	NERC S41, Red
Redstart	*Phoenicurus phoenicurus*	X	2011	Amber

Willow warbler	*Phylloscopus trochilus*	1.36	2019	Amber
Willow tit	*Poecile montana*	X	2011	NERC S41, Red
Marsh tit	*Poecile palustris*	X	2011	NERC S41, Red
Dunnock	*Prunella modularis*	1.36	2019	NERC S41, Amber
Bullfinch	*Pyrrhula pyrrhula*	1.36	2019	Amber
Kittiwake	*Rissa tridactyla*	X	2011	Red
Whinchat	*Saxicola rubetra*	X	2011	Red
Sandwich tern	*Sterna sandvicensis*	X	2011	Amber
Common tern	*Sterna hirundo*	X	2011	Amber
Tawny owl	*Strix aluco*	X	2011	Amber
Starling	*Sturnus vulgaris*	1.36	2019	NERC S41, Red
Redwing	*Turdus iliacus*	1.73	2011	WCA1
Song thrush	*Turdus philomelos*	1.36	2019	NERC S41, Red
Fieldfare	*Turdus pilaris*	X	2011	WCA1
Mistle thrush	*Turdus viscivorus*	1.12	2011	Red
Lapwing	*Vanellus vanellus*	X	2011	NERC S41, Red
Mammals (Bats)				
Barbastelle	*Barbastella barbastellus*	1.95	2019	EPS, WCA5, NERC S41
Serotine	*Eptesicus serotinus*	1.74	2019	EPS, WCA5
Daubenton's Bat	*Myotis daubentonii*	1.68	2012	EPS, WCA5
Leisler's bat	*Nyctalus leislerii*		2019	EPS, WCA5
Noctule Bat	*Nyctalus noctula*	1.16	2019	EPS, WCA5, NERC S41
Nathusius' pipistrelle	*Pipistrellus nathusii*	1.74	2019	EPS, WCA5
Common Pipistrelle	*Pipistrellus pipistrellus*	1.01	2019	EPS, WCA5
Soprano Pipistrelle	*Pipistrellus pygmaeus*	1.16	2019	EPS, WCA5, NERC S41
Brown Long-eared Bat	*Plecotus auritus*	1.24	2019	EPS, WCA5, NERC S41
Mammals				
West European Hedgehog	*Erinaceus europaeus*	0.60	2019	NERC S41
European Otter	*Lutra lutra*	0.89	2017	EPS, WCA5, NERC S41
Eurasian Badger	*Meles meles*	0.91	2018	PBA
Polecat	*Mustela putorius*	0.96	2014	EPS, NERC S41

Abbreviations used in Table 3.2: EPS: European Protected Species; WCA1i: Wildlife & Countryside Act Schedule 1, part 1; WCA5: Wildlife & Countryside Act Schedule 5; WCA8: Wildlife & Countryside Act Schedule 8; NT: Near Threatened; NS: Nationally Scarce; EN: Endangered; VU: Vulnerable; NERC S41: Natural Environment & Rural Communities Act Species of Principal Importance; UKBAP: UK Biodiversity Action Plan priority species; PBA: Protection of Badgers Act 1992; Birds: Red: Bird Population Status: red; Birds: Amber: Bird Population Status: amber; OX-RA: Oxfordshire Rare; OX-SC: Oxfordshire Scarce.

3.3 Phase 1 Habitat Survey

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

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

A2.2 Dense scrub

3.3.3 An area of dense scrub was present on the top of the bank in the north of the site, adjacent to the perimeter fence. The area appended patches of introduced shrub and comprised mainly bramble *Rubus fruticosus,* rose *Rosa sp.* and hawthorn *Crateagus monogyna* with occasional ash *Fraxinus excelsior* and cherry tree *Prunus sp.* saplings.

A3.1 Scattered broadleaved trees

3.3.4 Broadleaved trees were scattered across the site, mainly found within the large area of amenity grassland to the north of the site and within the introduced shrub borders adjacent to the car park, with species comprising false acacia *Robinia pseudoacacia,* London plane *Platanus X hispanica,* Norway maple *Acer platanoides* and broad-leaved lime *Tilia platyphyllos*.

3.3.5 A small ring of native trees was present around an old effluent point in the south east of the site, which included elder *Sambucus nigra* and English yew *Taxus baccata.*

3.3.6 A lone apple tree *Malus domestica sp.* was present within the amenity grassland, north east of the disused office building (B1).

3.3.7 All tree species were identified through the Arboriculture Impact Assessment (BB Trees, 2019).

A3.2 Scattered coniferous trees

3.3.8 A small ring of cypress *Cupressus sp.* were present around the old effluent point (TN2), within the amenity grassland, to the north east of the disused office building (B1).

J1.2 Amenity grassland

3.3.9 Amenity grassland dominated the site and was highly managed throughout.

3.3.10 An area to the east of the disused office building comprised amenity grassland dominated by annual meadow grass *Poa annua*, with occasional ground ivy *Glechoma hederacea*, ribwort plantain *Plantago lanceolata*, creeping buttercup *Ranunculus repens*, daisy *Bellis perennis,* dandelion *Taraxacum officinale* and germander speedwell *Veronica chamaedrys.*

3.3.11 A large area of amenity grassland was present on the bank to the north of the existing car park, with a similar species composition to that described above.

3.3.12 Smaller, disjointed areas of amenity grassland were present around the disused office building (B1) and in narrow, linear strips within the car park.

J1.4 Introduced shrub

3.3.13 Areas of introduced ornamental hedgerow and shrubs were present along the amenity grassland bank to the north of the site buildings.

J2.4 Fence

3.3.14 Metal security fencing was present around the north west of the site boundary.

J3.6 Buildings

3.3.15 There were three buildings within the site boundary comprising a disused office block (TN1) in the south of the site (B1), a smaller disused computer suite (B2) and a security hut (B3).

3.3.16 The disused office building was a five-storey brick-built building with concrete cladding and a flat roof (with roof access). Several of the windows on the south east elevation of the building were open which led to a large open plan-style office space, comprising meeting rooms and closed office spaces adjoined, on each floor. The office block became fully disused in 2015.

3.3.17 At roof level, some parts of the metal wire behind the ventilation slats were bent out of shape which allowed access into an internal cavity.

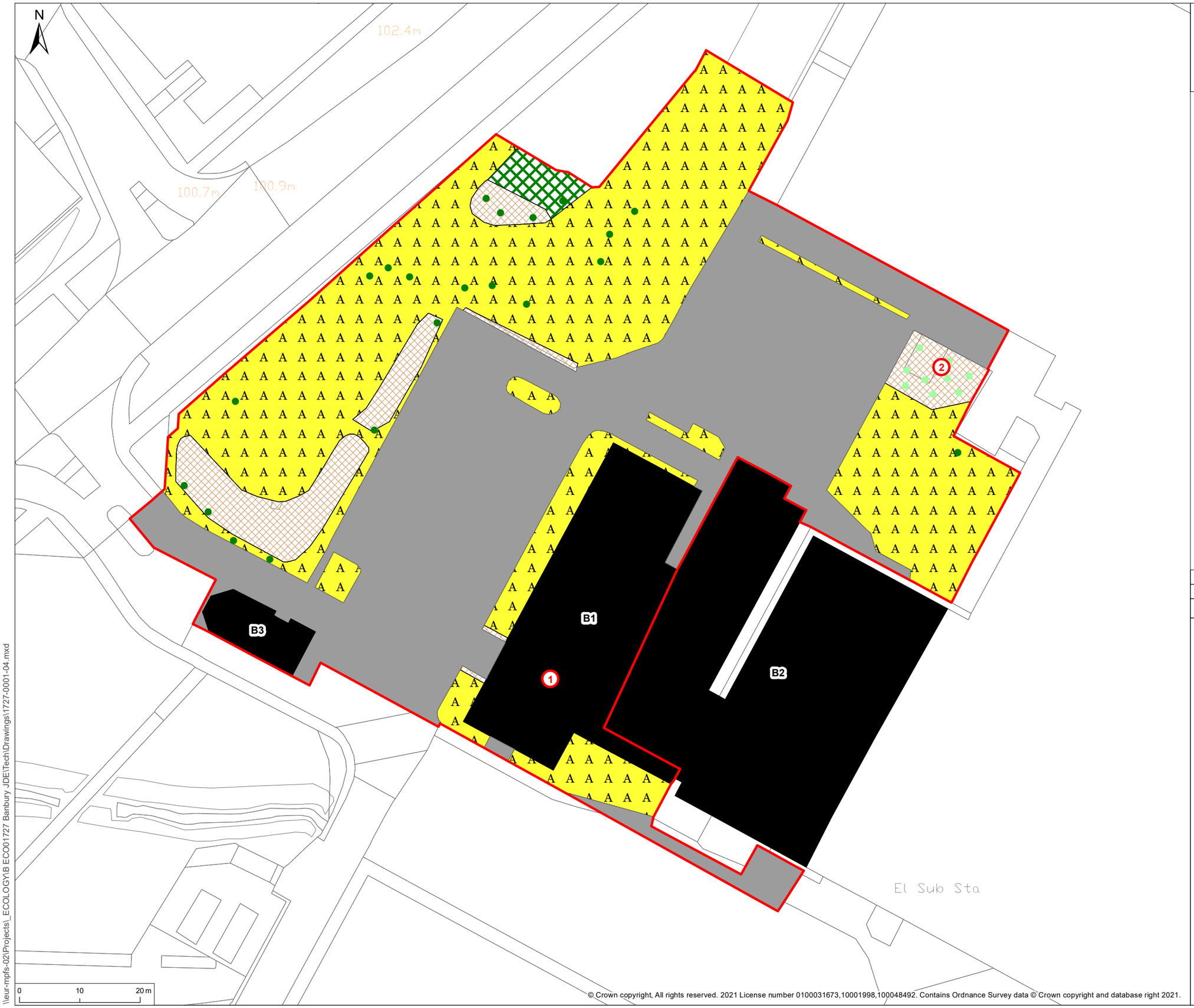
3.3.18 A smaller building (B2), formerly a computer suite, lay directly adjacent to the disused office block along the south eastern elevation. The building was single-storey and brick-built with a flat roof; plastic cladding was present along all elevations. The south west of the building had single pane windows and concrete pillars.

3.3.19 Building 3 (B3) was a small, single-storey brick-built and plastic cladded security hut.

J4 Bare Ground/Hardstanding

3.3.20 The remainder of the site comprised tarmacked car parking facilities, access roads and pavements.

Figure 3.2: Phase 1 Habitat Map



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Legend

- Amentiy grassland
- Buildings
- Hard standing
- Introduced shrub/ornamental planting
- Scrub - dense/continuous
- Scattered tree - broadleaved
- Scattered tree - coniferous
- Phase 1 target notes

Rev	Description	By	CB	Date

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Client -

Project Banbury JDE

Title Phase 1 Habitat Survey

Status	Drawn By	PM/Checked By
DRAFT	BG	KT
Project Number	**Scale @ A3**	**Date Created**
ECO01727	1:600	AUG 2021
Figure Number		**Rev**
3.2		-

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3.4 Ecological Scoping Survey

Plants

3.4.1 The habitats on site comprised a mix of amenity grassland and a range of ornamental shrubs and trees which provided little suitable habitat for rare and endangered plant species. There were no plant species of particular conservation significance noted during the survey

3.4.2 The habitats on site had not changed significantly since the original survey in 2019. Over time, the grassland has the potential to develop into a more interesting sward. However, as in 2019, species-diversity was still relatively low in August 2021.

Invertebrates

3.4.3 The site comprises highly managed habitats and comprises non-native species. The potential for the habitats present to support protected and/or notable invertebrates is low.

3.4.4 In 2021, the value of the habitats on site for invertebrates had not changed and therefore it was considered that the site would be unlikely to support any protected or notable species.

Herpetofauna

Reptiles

3.4.5 In 2019, the areas of amenity grassland on the site were not considered to provide suitable habitat for reptiles due to a regular mowing regime resulting in a lack of shelter and there were no opportunities for foraging and basking.

3.4.6 In August 2021, the value of the site as reptile habitat had not changed and it was considered unlikely that reptiles would now be present.

Great crested newts

3.4.7 The areas of amenity grassland and introduced shrub provided very limited terrestrial habitat for amphibians, including great crested newts (GCN). A stream was located 30 m to the south of the site, however it was considered to be unsuitable for GCN as the water was shallow and fast flowing, with limited aquatic vegetation. The stream is separated from the site by large areas of hardstanding and managed amenity grassland.

3.4.8 There were no other ponds or waterbodies identified within 250 m of the site.

Breeding Birds

3.4.9 Vegetation with the potential to support nesting birds was present within the site, including the scattered trees, amenity grassland and introduced shrub. Therefore, the loss of these habitats has the potential to impact breeding birds unless suitable mitigation is in place. The building could also support breeding birds.

3.4.10 In 2021, the habitats within and immediately adjacent to the site continued to provide habitat for a range of bird species and could potentially support protected and notable birds.

Bats

Building 1 (B1)

3.4.11 In 2019, the disused office building on site had moderate potential to supporting roosting bats. Gaps in the external façade of the building as well as open windows could allow bats to enter and leave the building.

3.4.12 Weep holes were present along the exterior of the building, however these were shallow and offered no suitable roosting opportunities for bats.

3.4.13 Internally, all floors had a very similar open plan layout with separate office and meeting spaces off the main floorspace. The majority of these office and meeting spaces were separated from the main open plan area by glass walls with closed, in most cases also locked, wooden doors. However, several of these doors were open and/or had holes in them. The main stairwell to all floors was along the south east of the building.

3.4.14 A number of ceiling tiles on all floors were missing, allowing access to the cavity between the ceiling and floor above. These were narrow dark cavities with cabling running within.

3.4.15 The small roof access was split into three rooms: a lift operating room; an old library storage area with wooden storage racks; and a roof access room with ducting, boilers/heaters and pipes.

3.4.16 Within the old library storage area there was a gap in the south east corner between the wall and roof where a pipe entered the room, the outside wall in this area had ventilation grates with openings. The eastern wall in the lift operating room had a large hole in it with a cavity between the internal and external walls. From the inside there were clear gaps in the external wall leading outside and to the wall cavity. The old lift shaft was not accessed at the time of survey.

3.4.17 This building was therefore considered to have moderate potential to support roosting bats at both ground- and roof-level.

3.4.18 During the walkover survey undertaken in 2021, it was noted that many of the lower floor windows had been shut, however some were still open on the ground floor. The building was still considered to have features suitable to support roosting bats.

Building 2 (B2)

3.4.19 The computer suite adjoined B1 along its south east elevation. The building comprised a single-storey and was brick-built with a flat roof; plastic cladding was present along all elevations. The south west of the building had single pane windows and concrete pillars.

3.4.20 Externally the building had limited potential for bat roosting features. The windows were well sealed, the brickwork was intact and there were no obvious features between the cladding and roof lining. Vents were present across the building, however these were netted and appeared to be in a good condition with no obvious gaps or tears.

3.4.21 However, two potential features were noted along the north eastern aspect; there was some slight damage to the cladding which created an access point into the structure; and a hole in the brickwork was also noted.

3.4.22 This building was therefore considered to have low potential to support roosting bats.

3.4.23 Following the walkover survey undertaken in 2021, the building was still considered to have features suitable to support roosting bats.

Building 3 (B3)

3.4.24 The security hut was a single-storey brick-built building and plastic cladding along the roof. Externally, there were no obvious access/egress points for bats and there was no internal roof void to inspect. This building would be retained in the current proposals.

3.4.25 This building was therefore considered to have negligible potential to support roosting bats.

3.4.26 Following the walkover survey undertaken in 2021, there were no changes noted in the condition of the building and it was therefore considered to remain unsuitable.

Trees

3.4.27 There were no trees within the site boundary which were considered suitable to support roosting bats.

Badgers

3.4.28 No signs of badgers were recorded during the habitat surveys undertaken in 2019 or 2021.

3.5 Bat Emergence Survey

3.5.1 Bat emergence surveys were undertaken on buildings B1 and B2 to determine whether a bat roost was present, the numbers of bats using it and the species using it.

3.5.2 Suitable bat roosting features were identified on B1 at both ground- and roof-level therefore separate emergence surveys were undertaken in order to fully assess the potential of these features for bat roosts.

3.5.3 The surveys were conducted in weather conditions appropriate for bat activity surveys (i.e. no heavy, persistent rain or strong winds and overnight temperatures above 10°C).

3.5.4 A summary of the survey dates, weather conditions and sunset times is provided in Table 3.3 below.

Table 3.3: Bat Emergence survey dates, weather conditions and sunset times

Building	Elevation	Date	Weather	Sunset time	Survey start	Survey finish
B1	Ground	20/05/19	15°C, heavy cloud, breezy	21:00	20:45	22:30
B1	Ground	20/06/19	11°C, partial cloud	21:29	21:14	22:59
B2	Ground	11/07/19	15°C, cloudy with light winds	21:23	21:08	22:53
B1	Roof	15/08/19	16°C, clear skies	20:30	20:15	22:00
B1	Roof	19/08/19	12°C, clear skies	20:21	20:06	21:51

Building 1

Bat emergence survey 20th May 2019

3.5.5 The bat emergence survey on the 20th May commenced at 20:45, 15 minutes before sunset and finished at 22:30. The survey was undertaken at ground-level.

3.5.6 No bats were seen emerging from the building but were detected foraging nearby. Bat activity was recorded at low levels during the survey.

3.5.7 The following bat activity was recorded during the survey:

- 21:21 – Common pipistrelle *Pipistrellus pipistrellus* was recorded foraging nearby for a few minutes. Some calls were quieter than others.
- 21:31 – A faint noctule *Nyctalus noctula* pass was heard.
- 21:44 – At least one common pipistrelle was heard foraging nearby and continued to do so until the end of the survey.

Bat emergence survey 20th June 2019

3.5.8 The bat emergence survey on the 20th June commenced at 21:14, 15 minutes before sunset and finished at 22:59. The survey was undertaken at ground-level.

3.5.9 No bats were seen emerging from the building but were detected foraging nearby. Bat activity was recorded at low levels during the survey.

3.5.10 The following bat activity was recorded during the survey:

- 21:49 – Brief noctule pass heard.
- 21:31 – Brief common pipistrelle pass heard.
- 22:24 – Common pipistrelle foraging around tree line along north western boundary of the site.

Bat emergence survey 15th August 2019

3.5.11 The bat emergence survey on the 15th August commenced at 20:30, 15 minutes before sunset and finished at 22:00. The survey was undertaken at roof-level.

3.5.12 No bats were seen emerging from the building but were detected foraging nearby. Bat activity was recorded at very low levels during the survey.

3.5.13 The following bat activity was recorded during the survey:

- 21:10 – brief passes from common pipistrelle and soprano pipistrelle *Pipistrellus pygmaeus*
- 21:40 – faint noctule pass – heard but not seen.

Bat emergence survey 19th August 2019

3.5.14 The bat emergence survey on the 19th August commenced at 20:21, 15 minutes before sunset and finished at 22:59. The survey was undertaken at roof-level.

3.5.15 No bats were heard or seen during the emergence survey.

Building 2

Bat emergence survey 11th July 2019

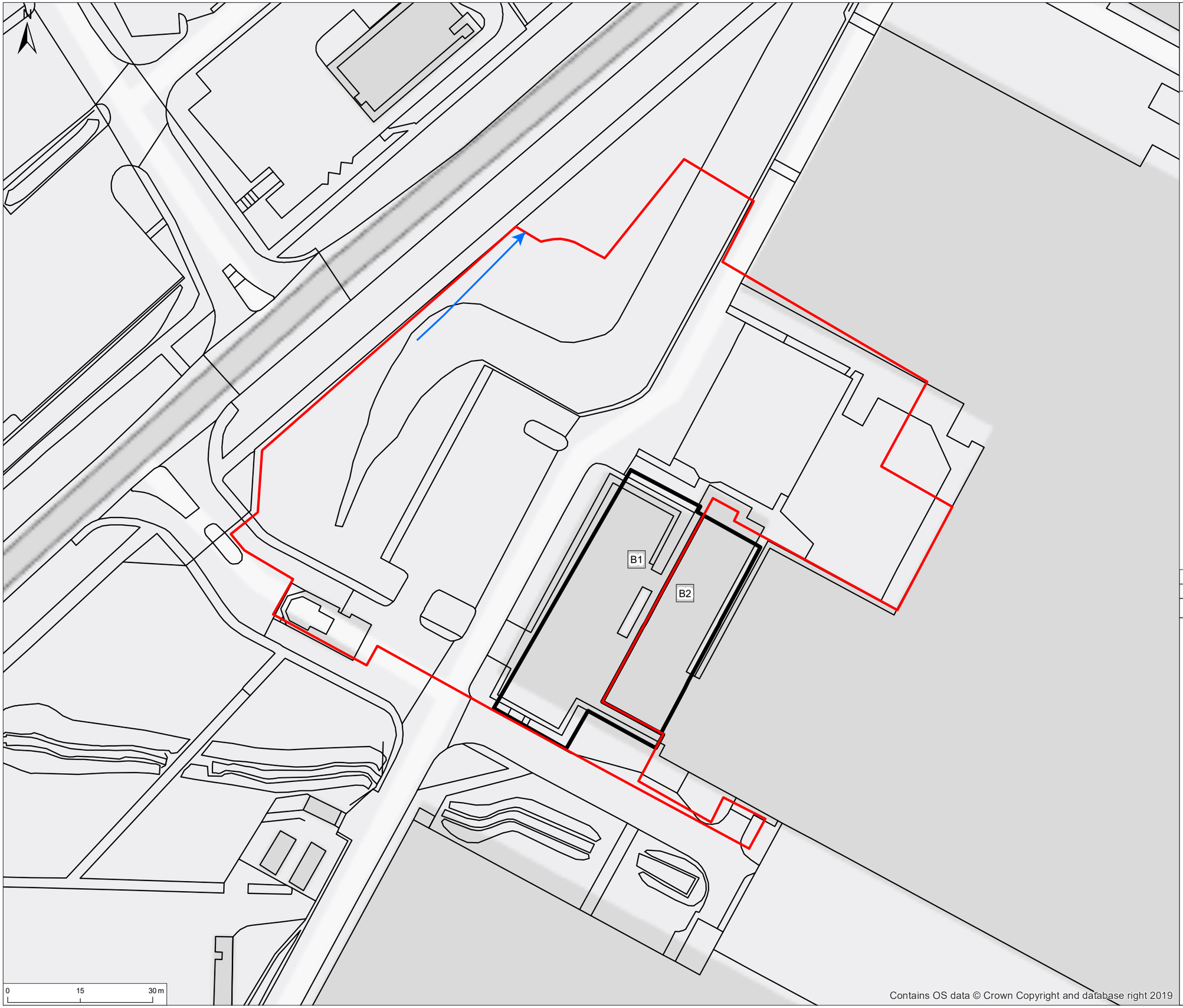
3.5.16 The bat emergence survey on the 11th July commenced at 21:08, 15 minutes before sunset and finished at 21:51. The survey was undertaken at ground-level.

3.5.17 No bats were seen emerging from the building but were detected nearby. Bat activity was recorded at very low levels during the survey.

3.5.18 The following bat activity was recorded during the survey:

- 21:10 – a single, faint pass of common pipistrelle – not seen.

Figure 3.3: Bat emergence survey results 2019



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Legend

- Site boundary
- Buildings
- Building Reference
- P.pip Activity

Rev	Description	By	CB	Date

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Client -

Project Banbury JDE

Title Bat emergence survey results 2019

Status	Drawn By	PM/Checked By
DRAFT	RN	LM
Project Number	**Scale @ A3**	**Date Created**
ECO01727	1:750	OCT 2019

Figure Number **3.3**

Rev **02**

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4 EVALUATION AND POTENTIAL IMPACTS

4.1 Designated Sites

4.1.1 One statutory designated site was located within 2 km of the site; Neithrop Fields Cutting SSSI which is located 0.88 km from the site.

4.1.2 The site is designated due to its geology and therefore the proposed work would not have any ecological impacts on the site.

4.2 Habitats

4.2.1 Several widespread and common habitats were identified across the site. Table 4.1 below summarises the habitat types within the site and outlines the potential impacts of the development proposals to each of these habitats.

Table 4.1: Summary of potential habitat impacts

JNCC Code	Habitat Type	Area (ha)	% of site	Ecological Importance	Potential impact
A2.2	Dense scrub	0.01	<1	Moderate	Breeding birds
A3.1	Scattered broadleaved trees	N/A	<1	Moderate	Breeding birds and foraging and commuting bats
A3.2	Scattered coniferous trees	N/A	<1	Moderate	Breeding birds
J1.2	Amenity grassland	0.38	32.8	Negligible	None
J1.4	Introduced shrub	0.06	5.2	Low	Breeding birds
J2.4	Fence	N/A	<1	None	None
J3.6	Buildings	0.31	27.1	Low	Roosting bats
J4	Bare ground/hardstanding	0.39	34.2	None	None

4.3 Species

Plants

4.3.1 The site comprises highly managed habitats and non-native species. The potential for notable flora to be present is low and no effects from the development on flora of conservation interest are considered to be likely.

Invertebrates

4.3.2 The site comprises highly managed habitats and comprises non-native species. The potential for the habitats present to support notable invertebrates is low and no effects from the development on invertebrates of conservation interest are considered likely.

Herpetofauna

Reptiles

4.3.3 There was no suitable reptile habitat identified within the site boundary, as the majority of habitats comprised highly managed grassland and scrub which were isolated from areas of higher-value habitat, therefore no effects from the development on reptiles is considered likely.

Great crested newts

4.3.4 The habitats present within the site boundary comprised mainly hardstanding and highly managed amenity grassland which was considered unsuitable for GCN. A nearby stream located approximately 30 m to the south of the site was scoped out for further surveys as the water was shallow and fast-flowing and was not considered to provide any suitable breeding habitat for GCN. The closest GCN record to the site (from desk study data) was over 1.6 km away.

4.3.5 A single GCN was found sheltering under a reptile mat during a reptile survey undertaken in late June on an area of grassland adjacent to the existing JDE carpark; no other GCN were found during the surveys. It is likely that the individual was a sub-adult newt dispersing away from the natal pond and passing through the site.

4.3.6 Site 2 comprised large areas of hardstanding and regularly managed amenity grassland which were unsuitable terrestrial habitat for GCN. Site 2 is isolated from the stream via expansive areas of hardstanding and amenity grassland and therefore it is considered highly unlikely that GCN would be using any areas of this site.

4.3.7 However, a precautionary approach would be undertaken prior to and during construction in the highly unlikely event that GCN are present on site. Details on mitigation measures for GCN are included within Section 5 of this report.

Breeding Birds

4.3.8 The scrub, trees and introduced shrubs within and immediately adjacent to the site provided foraging and nesting habitat for a range of common and widespread breeding birds. The buildings also offered nesting potential for birds, though none were observed at the time of the survey.

4.3.9 To minimise the impacts on the breeding birds within the site boundary, the measures described in Section 5 of this report should be adhered to.

Bats

4.3.10 The disused office building (B1) on site had moderate potential for supporting roosting bats and the computer suite (B2) was identified as having low potential for supporting roosting bats. Further surveys were undertaken on both buildings, following BCT guidelines (2016). There were no bats were recorded emerging from either building and bat activity was generally very low across the site.

4.3.11 The trees along the north western boundary of the site are likely to provide good foraging and commuting habitat for bats; these trees are to be retained, with additional new tree planting proposed.

4.3.12 There are no likely adverse impacts on foraging and commuting bats as a result of the development, however it is recommended that measures are implemented to avoid night-time lighting of areas that could provide flight lines and foraging habitats for bats.

4.3.13 Due to the length of the time elapsed since the original surveys in 2019, further surveys for bat are recommended. Further details for the additional surveys are provided in Section 5 below.

Badgers

4.3.14 No signs of badger activity were recorded on site in either 2019 and 2021 and therefore no effects from the development are considered likely.

5 MITIGATION AND ENHANCEMENT

5.1 Designated Sites

5.1.1 There were no sites designated for their nature conservation value within 2 km of the site, therefore no mitigation measures are required. One site, Neithrop Fields SSSI, was identified within 2 km of the site but was designated for its geological interest and therefore has no ecological constraints.

5.2 Habitats

5.2.1 The habitats on the site are common and widespread and comprise a low diversity of flora. However, they have the potential to support protected species (breeding bird and bat roosts).

5.2.2 Building B1 would be demolished in the current proposals. Large areas of amenity grassland with some trees and introduced shrub would also be removed.

5.2.3 The NPPF (2021) states that to minimise impacts on biodiversity, planning policies should promote the preservation, restoration and re-creation of priority habitats.

5.2.4 After any mitigation required for these species has been designed into the proposals, new habitats should be created through soft landscaping comprising habitats of greater value than those to be lost. Ideally this should be carried out onsite. Where this is not possible, opportunities for offsite habitat creation will be explored to ensure a net gain for biodiversity is achieved.

5.3 Species

Great Crested Newts

5.3.1 A single sub-adult GCN was identified by a fast-flowing stream within the wider JDE site in 2019. Site 2 comprised large areas of hardstanding and regularly managed amenity grassland which were unsuitable terrestrial habitat for GCN. Site 2 is isolated from the stream via expansive areas of hardstanding and amenity grassland and therefore it is considered highly unlikely that GCN would be using any areas of this site.

5.3.2 Given the highly unlikely event that GCN are present on site, a precautionary approach would be undertaken prior to and during construction. Therefore, the following measures should be adhered to:

- Vegetation should be cut down to just above ground level during the winter and the root systems removed carefully between March and October;
- Works would avoid any direct impacts on retained or off-site habitats, such as from run-off or accidental encroachment from construction vehicles, site operatives or machinery;
- Construction machinery and materials should be stored on areas of hardstanding or raised off the ground on pallets, where possible;
- Waste materials should be removed off site immediately or stored in skips, where possible;
- Excavations should be backfilled, covered overnight, or ramps placed in to allow any animals to escape;
- Excavations and working areas should be managed so as not to create temporary waterbodies which may attract newts onto site; and
- Access roads should use existing roads and tracks and keep habitat disturbance to a minimum, avoiding any areas of sensitive or potentially valuable habitat.

Breeding Birds

5.3.3 The scrub, trees and introduced shrubs within and immediately adjacent to the site provided foraging and nesting habitat for a range of common and widespread breeding birds. The buildings also offered nesting potential for birds, though none were observed at the time of the survey.

5.3.4 It is recommended that features with potential to support nesting birds are removed outside of the breeding bird season. It should be noted that whilst the main bird breeding season runs between March and September some birds can nest at any time of year.

5.3.5 If any clearance was required during the breeding season, the relevant areas should be inspected by a suitably qualified ecologist within 48 hours prior to clearance to check for the presence of nesting birds. If an active nest was present, the nest and vegetation within 5 m of it would need to be retained until the young birds had fledged.

5.3.6 If a nest proved to be of a species listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), advice from the inspecting ecologist regarding suitable distances to avoid disturbance of the nest and any birds using it would need to be sought and agreed with clearance contractors. Such buffers would need to remain in place until the young birds had fledged and left the nest.

5.3.7 Areas of high-value habitats that were being retained should be protected from accidental damage or disturbance during construction and managed to ensure their long-term existence. The habitats should also be protected from any increases in disturbance post-construction; this could be achieved through the implementation of measures to minimise additional pedestrian or vehicular access to these habitats.

5.3.8 Soft landscaping within the development, such as tree and scrub planting, would be used to compensate for any habitat loss and maintain habitat connectivity. This would be achieved by the use of native plants mixes to recreate lost habitat and maintain linkages between remaining areas of natural habitat.

5.3.9 It is also recommended that bird boxes are installed on retained mature trees within the site boundary, to provide alternative nesting opportunities for smaller bird species.

Bats

5.3.10 No bats were seen to emerge or re-enter the buildings during the bat surveys and activity levels across the site were generally very low.

5.3.11 Due to the length of the time elapsed since the original surveys in 2019, it is recommended that an additional emergence/re-entry survey is undertaken on both the office block (B1) and computer suite (B2) to ensure the continued absence of bats using these features. Emergence and re-entry surveys can be undertaken between May and September, but only in appropriate weather conditions; when overnight temperatures do not fall below 10°C and there is no rain or strong winds.

5.3.12 Bat activity was recorded at low levels nearby, therefore it is recommended that measures are implemented to avoid night-time lighting of areas that could provide flight lines and foraging habitats for bats.

5.3.13 Any proposed lighting required for the site would be designed to direct artificial light to where it is needed and should be directed away from any existing or proposed habitats that would be used by foraging and/or commuting bats (such as retained woodland, tree lines and boundary features).

5.3.14 Where practicable, lux levels should be 0.5 lux or less at the interface with any of these habitats. Where this is not practicable advice from an ecologist should be sought to determine the impact on bats.

5.3.15 The guidance provided in Bats and Artificial Lighting in the UK (ILP, 2018) should be followed.

5.3.16 Measures would need to be included within an Ecological Management Plan (EMP) that ensured any trees or buildings with bat roost potential were managed appropriately and activities such as heavy pruning of trees or maintenance to buildings was only undertaken once an ecologist had been consulted.

5.3.17 It is recommended that an ecologist is consulted regarding the proposed lighting design for the site to ensure that any artificial light proposed is directed away from suitable bat habitats present.

5.3.18 It is also recommended that bat boxes are installed on retained mature trees within the site boundary, to provide additional roosting opportunities for bats.

5.4 Enhancement Measures

5.4.1 Landscape proposals have been designed to achieve biodiversity enhancements, to increase the ecological value of the site. These include the following:

- Retaining, protecting and enhancing existing hedgerows and trees;
- Providing and enhancing grassland; and
- Providing native hedgerow and ornamental shrub planting.

6 CONCLUSIONS

6.1.1 The EA identified designated sites and records of protected and notable species within the search area around the site. The site was found to comprise three buildings (a disused five storey office building, a smaller disused computer suite and a security hut), with areas of hardstanding, amenity grassland, introduced shrub and scattered broadleaved and coniferous trees.

6.1.2 In 2019, the site was found to comprise habitats suitable for breeding birds, roosting bats and foraging and commuting bats.

6.1.3 In 2021 the habitats on site had not changed significantly since the original survey in 2019 and the site was found to continue to provide suitable habitat for breeding birds and roosting bats.

6.2 Designated Sites

6.2.1 There were no statutory designated sites or non-statutory designated sites designated for their nature conservation interest identified within 2 km of the site during the desk study. The proposals will therefore have no effect on any site designated for its nature conservation interest.

6.3 Habitats

6.3.1 Building B1 and large areas of the amenity grassland, hardstanding and introduced shrub will be lost to the development proposals.

6.3.2 None of the habitats themselves are of significance as the majority of the plant species are non-native ornamental species. However, the habitats present do have the potential to support protected and notable fauna species.

6.4 Species

Great Crested Newts

6.4.1 A single sub-adult GCN was found during a reptile survey undertaken in late June on an area of grassland adjacent to the existing JDE carpark. There were no waterbodies identified within 500 m of the site boundary and the site itself had limited terrestrial habitat.

6.4.2 Given the highly unlikely event that GCN are present on site, a precautionary approach would be undertaken prior to and during construction.

Breeding Birds

6.4.3 The trees and introduced shrub continue to provide habitat for a range of bird species and could potentially support species of conservation concern.

6.4.4 Further mitigation measures would be required to ensure that there would be no adverse effects on the species present and using the site

6.4.5 The value of the site for breeding birds would be slightly reduced due to habitat loss and due to the deterioration of retained habitats and therefore mitigation measures would also be required to ensure alternative habitats were provided.

Bats

6.4.6 The PRA identified that the office block (B1) had moderate potential to support roosting bats. The smaller, single-storey computer suite (B2) was assessed as having low roosting potential. The security hut (B3) had negligible potential to support roosting bats and would be retained in the current proposals.

6.4.7 Following an initial assessment of the site, further surveys for bats were undertaken on B1 (at ground- and roof-level) and B2.

6.4.8 No bats were seen to emerge or re-enter the buildings during the bat surveys and activity levels across the site were generally very low.

6.4.9 Due to the length of time elapsed since the original surveys, it is recommended that an additional bat emergence/re-entry survey is undertaken on both B1 and B2 to ensure the continued absence of bats using these features

6.5 Enhancement Measures

6.5.1 Measures to enhance the biodiversity value of the site have been designed into the project proposals through the provision of new, higher value habitats.

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APPENDICES

Appendix A

Relevant Legislation

Great Crested Newts

Great created newts Triturus cristatus are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (and as amended), which affords the species protection under Section 9. The species is also listed on Schedule 2 of the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) 2019. In combination, this makes it an offence to:

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

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

Birds

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

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

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

Bats

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

- intentionally or recklessly kill, injure or capture bats;
- deliberately or recklessly disturb bats (whether in a roost or not); and
- damage, destroy or obstruct access to bat roosts

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

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

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

Appendix B

Target Notes

Target Note No.	Description
1	A disused office building providing moderate bat roost potential.
2	Mixed tree screening around an old and closed effluent point. Potential nesting bird habitat within tree canopies.

Appendix C

Phase 1 Species List

Annual meadow grass *Poa annua*

Apple *Malus domestica sp.*

Ash *Fraxinus excelsior*

Bramble *Rubus fruticosus*

Broad-leaved lime *Tilia platyphyllos*

Buttercup *Ranunculus repens*

Cherry *Prunus sp.*

Common nettle *Urtica dioica*

Cow parsley *Anthriscus sylvestris*

Crane's bill *Geranium sp.*

Cypress sp. *Cupressus sp.*

Daffodil *Narcissus sp.*

Daisy *Bellis perennis*

Dandelion *Taraxacum officinale*

Elder *Sambucus nigra*

English yew *Taxus baccata*

False acacia *Robinia pseudoacacia*

Germander speedwell *Veronica chamaedrys*

Ground ivy *Glechoma hederacea*

Hawthorn *Crataegus monogyna*

London plane *Platanus X hispanica*

Norway maple *Acer platanoides*

Perennial rye grass *Lolium perenne*

Ragwort *Senecio iacobaea*

Red dead nettle *Lamium purpureum*

Ribwort plantain *Plantago lanceolata*

Rose *Rosa sp.*

Spear thistle *Cirsium vulgare*

Willowherb *Epilobium sp.*