

Botley West Solar Farm

Environmental Statement

Volume 3

Appendix 9.1: Desk Study

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Glossary

Term	Meaning
The Applicant	SolarFive Ltd (SolarFive)
The Project	Botley West Solar Farm
The Study Area	The Study Area for the ecology desk study, which describes the geographical extent within which information was sought, comprises the Project site plus buffer zones for specific data sets described in paragraph 1.2.1.
The Developer: Photovolt Development Partners Gmbh	Photovolt Development Partners GmbH (PVDP).
Priority Habitats	Habitats listed as being of principal importance for conservation in England under Section 41 of the Natural Environment and Rural Communities Act 2006.
Priority Species	Species listed as being of principal importance for conservation in England under Section 41 of the Natural Environment and Rural Communities Act 2006.

Abbreviations

Abbreviation	Meaning			
ASNW	Ancient semi-natural woodland			
BoCC Amber	Birds of Conservation Concern Amber List (species moderate conservation concern)			
BoCC Red	Birds of Conservation Concern Red List (species high conservation concern)			
BBOWT	Berks, Bucks and Oxon Wildlife Trust			
BDir1	Annex 1 of the EC Birds Directive			
CTA	Conservation Target Area			
DWS	District Wildlife Site			
ES	Environmental Statement			
Fungi-Red-CR	Red Data List of Threatened British Fungi (preliminary assessment) following IUCN 2001 guidelines - Critically Endangered.			
Fungi-Red-NT	Red Data List of Threatened British Fungi (preliminary assessment) following IUCN 2001 guidelines - Near Threatened			
Fungi-Red-VU	Red Data List of Threatened British Fungi (preliminary assessment) following IUCN 2001 guidelines – Vulnerable.			
HDir-A2np	Animal and plant species listed on Annex 2 of the EC Habitats Directive as being endangered, vulnerable, rare or endemic and requiring the designation of special areas of conservation (See also HReg 4)			





Abbreviation	Meaning			
HDir2	Animal and plant species listed on Annex 2 of the EC Habitats Directive as being endangered and requiring the designation of special areas of conservation (See also HReg 4)			
HDir4	Animal and plant species listed on Annex 4 of the EC Habitats Directive as requiring strict protection (See also HReg 4)			
HDir5	Animal and plant species who taking in the wild and exploitation may be subject to management measures.			
HReg2	Animal and plant species listed under Annex 4 of the EC Habitats directive and transposed into UK law in Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended)			
INNS-Other-2015	Species listed on the 2014 Environment Agency list of Invasive Species.			
INNS-Priority-2015	Species listed on the 2014 Environment Agency list of Invasive Species as affecting EA interest with high priority			
INNS-Rapid-2015	Species listed on the 2014 Environment Agency list of Invasive Species as being very invasive but not yet established.			
LNR	Local Nature Reserve			
LWS	Local Wildlife Site			
MAGIC	Multi-agency Geographic Information for the Countryside website			
N	Nationally Notable (invertebrates) (occurring in between 16 and 100 hectads)			
N-A	Nationally Notable A (invertebrates) (occurring in fewer than 30 hectads)			
N-B	Nationally Notable 8 (invertebrates) (uncommon in Britain - occurring in 31 to 100hectads)			
NE	Natural England			
NERC	Natural Environment and Rural Communities (Act) 2006			
NIA	Nature Improvement Area			
NNR	Nation Nature Reserve			
NR	Nationally Rare (occurring in 15 of fewer hectads)			
NS	Nationally Scarce (occurring in between 16 and 100 hectads)			
Oxon-R	Oxfordshire Rare Plants Register rare species			
Oxon-S	Oxfordshire Rare Plants Register scarce species			
PAWS	Plantation on Ancient Woodland Site.			
РВА	Protection of Badgers Act 1992			
PDWS	Potential District Wildlife Site			
PLWS	Potential Local Wildlife Site.			
PVDP	Photovolt Development Partners GmbH			





Abbreviation	Meaning				
RL-ENG-post2001- CR	Species listed as critically endangered on the England post-2001 Red List				
RL-ENG-post2001- DD	Species listed on the England post-2001 Red List but for which there is insufficient data to assign a risk category.				
RL-ENG-post2001- EN	Species listed as endangered on the England post-2001 Red List				
RL-ENG-post2001- NT	Species listed as near-threatened on the England post-2001 Red List				
RL-ENG-post2001- VU	Species listed as vulnerable on the England post-2001 Red List				
R	Great Britain Red List species (pre 1994 and post 2001) at risk but not presently vulnerable or endangered.				
RL-GB-pre94-EN	Species listed as endangered on the Great Britain pre-1994 Red List				
RL-GB-pre94-Inde	Great Britain Red List species listed on the pre 1994 red list and known to be endangered, rare or vulnerable but with insufficient data to place into one of these categories.				
RL-GB-pre94-Insu	Great Britain Red List species listed on the pre 1994 red list and for which there is insufficient data to assess threat.				
RL-GB-pre94-NT	Species listed as near-threatened on the Great Britain pre-1994 Red List				
RL-GB-pre94-R	Species listed as rare on the Great Britain pre-1994 Red List				
RL-GB-pre94-VU	Species listed as vulnerable on the Great Britain pre-1994 Red List				
RL-GB-post2001-DD	Species listed on the Great Britain post-2001 Red List but for which there is insufficient data to assign a risk category.				
RL-GB-post2001-EN	Species listed as endangered on the Great Britain post-2001 Red List				
RL-GB-post2001-NT	Species listed as near-threatened on the Great Britain post-2001 Red List				
RL-GB-post2001-VU	Species listed as vulnerable on the Great Britain post-2001 Red List				
RL-Global-post2001- CR	Species listed as critically endangered on the Global post 2001 Red List of the International Union for Conservation of Nature (IUCN)				
RL-Global-post2001- DD	Species listed on the Global post 2001 Red List of the International Union for Conservation of Nature (IUCN) but for which there is insufficient data to assign a risk category.				
RL-Global-post2001- EN	Species listed as endangered on the Global post 2001 Red List of the International Union for Conservation of Nature (IUCN)				
RL-Global-post2001- NT	Species listed as near threatened on the Global post 2001 Red List of the International Union for Conservation of Nature (IUCN)				
RL-Global-post2001- VU	Species listed as vulnerable on the Global post 2001 Red List of the International Union for Conservation of Nature (IUCN)				
RSPB	Royal Society for the Protection of Birds				





Abbreviation	Meaning
S41	Species listed as being of principal importance for conservation in England under Section 41 of the Natural environment and rural communities act 2006.
SAC	Special Area of Conservation
SoSC	Specie of Special Concern – invasive species listed under the Invasive Non- native Species Regulations (amendment etc) (EU Exit) Regulation 2019.
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
TVERC	Thames Valley Environmental Records Centre.
WCA1	Wild birds listed on schedule 1 of the Wildlife and countryside Act 1981 (as amended) subject to additional protection from the disturbance at the nest or with dependent young.
WCA5	Animal species protected from intentional killing injuring or taking under schedule 5 of the Wildlife and Countryside Act 1981 (as amended).
WCA8	Plant species listed on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) and protected from intentional picking uprooting or destruction.
WCA9	Invasive non-native animal and plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

Units

Unit	Description	
km	Kilometres	
На	Hectares	





1 Introduction

- 1.1.1 This Appendix of the Environmental Statement (ES) has been prepared by RPS on behalf of Photovolt Development Partners GmbH. (PVDP) for the Applicant, SolarFive Ltd. (SolarFive).
- 1.1.2 The purpose of this technical report is to present the methodology and results of the desk study for the Project. The results of this desk study have been used to inform Chapter 9: Ecology and Nature Conservation in Volume 1 of the ES [EN010147/APP/6.3].

2 Methodology

Study Area

- 2.1.1 The Study Area for the ecology desk study, which describes the geographical extent within which information was sought, comprises the Project site plus buffer zones for specific data sets as follows:
 - 10 km for internationally designated sites: Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites;
 - 5 km for nationally designated sites: Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs);
 - 2 km for non-statutory designated sites, including Local Nature Reserves (LNRs), Local Wildlife Sites (LWSs) proposed Local Wildlife Sites (PLWSs), Conservation Target Area (CTA), District Wildlife Site (DWS), potential District Wildlife Sites (PDWS) and Berks Bucks and Oxon Wildlife Trust (BBOWT) Reserves, and relevant areas designated in Local Plans;
 - 2 km for records of protected or notable species and species of principal importance for conservation in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (priority species), including invasive non-native species but excluding bats and otter;
 - 10 km for records of bats:
 - 5 km for records of otter;
 - 2 km for priority habitats;
 - 2 km for Ancient woodland on the Natural England (NE) Ancient Woodland Inventory; and
 - 50 m for trees listed on the Woodland Trust Ancient Tree Inventory.





2.1.2 The location and geographic extent of the Project desk Study Area, including the buffer distances identified above is shown with the results in Annex A.





Sources of information

- 2.1.3 Historical data for the ecology desk Study Area was requested from the Thames Valley Environmental Records Centre (TVERC) in February 2024 for statutory and non-statutory designated sites, ancient woodlands, S41 habitats and S41 species, legally protected species and other species of conservation interest or concern, and invasive non-native species.
- 2.1.4 Supplementary information on statutory designated sites was obtained from the Multi Agency Geographic Information for the Countryside (MAGIC) interactive mapping system (2024) and the Joint Nature Conservation Committee (JNCC) website.
- 2.1.5 Information on green infrastructure and other areas designated in Local plans was requested from Cherwell District Council, West Oxfordshire district Council and Vale of White Horse District Council.
- 2.1.6 Information on ancient veteran and notable trees was obtained from the Woodland Trust Ancient Tree Inventory (Woodland Trust).
- 2.1.7 Standard industry practice accepts that ecological data becomes less reliable over time, therefore only species records from the last ten years has been included in the desk study.
- 2.1.8 The desk study was undertaken in accordance with the relevant guidance provided by Chartered Institute of Ecology and Environmental Management (CIEEM, 2017).

Relevant legislation, policy and published lists

Designated Sites

- 2.1.9 Nature conservation designated sites comprise any of the following:
 - SACs, and SPAs and SACs and SPAs designated under The Conservation of Habitats and Species Regulations 2017 (as amended) as well as candidate SACs and SPAs;
 - Ramsar Sites identified and designated under the Convention on Wetlands of International Importance;
 - SSSIs, NNRs designated under the Wildlife and Countryside Act 1981 (as amended);
 - LNRs designated under the National Parks and Access to the Countryside Act 1949 (as amended);
 - Non-statutory designations (LWS, PLWS, DWS, PDWS, CTAs designated by the local authority);
 - BBOWT reserves owned and run by BBOWT;
 - Green Belt and Nature Improvement Areas identified in the West Oxfordshire Local Plan;





- Green Infrastructure network identified in the Vale of White Horse Local Plan; and
- Existing Greenspace and New Greenspace / Parks identified in the Cherwell Local Plan.

Ancient woodland

- 2.1.10 Ancient woodland sites provided by TVERC vary in nature, with the following types of woodland noted according to the Ancient Woodland Inventory (Natural England, 2023):
 - Ancient semi natural woodland (ASNW) broadleaf woodlands comprising mainly native tree and shrub species which are believed to have been in existence for over 400 years;
 - Plantation on ancient woodland sites (PAWS) sites which are believed to have been continuously wooded for over 400 years and currently have a canopy cover of more than 50 percent (%) non-native conifer tree species; and
 - Ancient wood pasture- woodlands where the trees are managed with use
 of a long-established tradition of grazing, characteristically with at least
 some veteran trees or shrubs.

Ancient, Tree Inventory

- 2.1.11 Trees listed on the Woodland Trusts Ancient Tree Inventory can be recorded and submitted by anyone following the guidance provided on the website. The inventory lists trees under three different age classes: notable, veteran and ancient
- 2.1.12 Ancient trees are trees in their third and final stage of life for that species. They are some of the oldest trees for their species and possess features of biological / wildlife and sometimes cultural value. Typically, this includes reduced crown, hollow trunk, cavities on trunk and limbs, rough or creviced bark, fungal fruiting bodies from dead wood, and deadwood in the crown.
- 2.1.13 Veteran trees aren't as old as ancient trees. They are veteran because they possess some of the feature of ancient trees which have value for wildlife, and which have developed as a result of the trees life or environment rather than just age. This includes deadwood, cavities, and water filled hollow.
- 2.1.14 Notable trees are trees notable for their size (for their species) and may be especially large or prominent but lack the features of age and decay that characterise veteran and ancient trees.

Legally protected species

- 2.1.15 Legally protected species comprise any species protected or listed under the following legislation:
 - Annex 1 of the EC Birds Directive (BDir1);





- Annex 2 of The Conservation of Habitats and Species Regulations 2017(as amended) (HReg2);
- Habitats Directive Annex II Species requiring designation of Special Areas of Conservation (HDir2), Annex IV - Species in need of strict protection (HDir4), Annex V - Species where population management is decided by individual countries (HDir5);
- Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended) (referred to as WCA1, WCA5 and WCA8 respectively);
- Bern Convention on the Conservation of European Wildlife and Natural Habitats, Appendix 2 - Strictly protected fauna species (Bern2), Appendix 3 - Protected fauna species (Bern3);
- species listed in Appendix 2 of the Bonn Convention on the Conservation of Migratory Species of Wild Animals (Bonn2);
- The Protection of Badgers Act 1992;
- The Eels (England and Wales) Regulations 2009; and
- Salmon and Freshwater Fisheries Act 1975.

Other species and habitats of conservation interest or concern

- 2.1.16 Other species of conservation concern which may or may not be legally protected are those listed or assed under the following lists or criteria:
 - habitats and species listed as being of principal importance for conservation in England under section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (Priority Species and Priority Habitats);
 - Global, GB and England red lists based on the International Union for Conservation of Nature (IUCN) guidelines – Critically Endangered, Data Deficient, Endangered, Extinct, Least Concern, Near Threatened (NT), Rare, Vulnerable;
 - Species uncommon in Britain and who status is not based on IUCN criteria

 – Nationally Notable (Notable), Nationally Notable A, Nationally Notable B, Nationally Scarce and Nationally Rare;
 - Species listed on the Red Data List of Threatened British Fungi;
 - Oxfordshire Rare Plant Register; and
 - Birds of Conservation Concern (BoCC) red list species of high conservation concern and amber list species of moderate conservation concern.

Invasive non-native species

2.1.17 Species described as invasive non-native species in this report comprise those listed on the following lists and legislation:





- Schedule 9 of the Wildlife and Countryside Act 1981 (as amended); and
- Great Britain Non-native Species Inventory Portal Checklist of Non-native Species.

Confidential records

2.1.18 Record of badgers should be treated as confidential and not distributed publicly. This is because of the risk of persecution if records of badger setts are made publicly available.

Limitations

- 2.1.19 The Applicant cannot be held liable for any inaccuracies or incompleteness of third-party data.
- 2.1.20 Desk study data shows where species have been recorded. The absence of records may be due to the absence of surveys in that area or a lack of reporting of results and incidental sighting. The absence of records therefore, does not mean an absence of a species. The findings of this technical report have not been relied upon alone to determine species presence or absence but have been used in conjunction with habitat and species-specific surveys (see Volume 9: ecology and nature conservation and the associated annexes).





3 Results

Figures

3.1.1 The results of the searches for all ecological features included in the desk study are summarised in Annex A with more detailed results tables and analysis in the text below.

Internationally designated sites

- 3.1.2 The ecology desk study identified two internationally designated sites within 10 km of the Site. The closest is Oxford Meadows SAC located 1 km from the Site.
- 3.1.3 International designated sites within the Study Area are described along with their distance from the Project and their reasons for designation in Table 3.2.1. The location and geographical extent of the sites are illustrated in Anx Figure 1
- 3.1.4 There are no internationally designated sites within the Project site.

Table 3.2.1. Internationally designated sites within 10 km of the Project site.

Site name	Designation	Distance from the Project (km)	Site area (ha)	Description
Oxford Meadows	SAC	1.00	265.89	The primary reason for designation is the Habitats Directive Annex 1 habitat: lowland hay meadows. The SAC represents lowland hay meadows in Thames Valley. Includes vegetation communities perhaps unique in the world reflecting the influence of long-term grazing and hay-cutting on lowland hay meadows. The SAC is one of only two sites in the UK for the Annex II species creeping marshwort <i>Apium repens</i> which is also a primary reason for designation.
Cothill Fen	SAC	3.65	43.26	The primary reason for designation is the Habitats Directive Annex I habitat: Alkaline fens. The SAC contains one of the largest surviving examples of alkaline fen vegetation in central England. Also present as a qualifying feature is the Annex II habitat Alluvial forests with Alnus glutinosa and Fraxinus excelsior which is a Habitats Directive priority feature. General site character includes inland water bodies, bogs, marshes and water fringed vegetation and broad-leaved deciduous woodland.





Nationally designated sites

- 3.1.5 The desk study identified 21 nationally designated sites within 5 km of the Site. The closest site is Wytham Woods (SSSI) which adjoins the Project site. Blenheim Park (SSSI) is 0.01 km from the Project.
- 3.1.6 National designated wites within the Study Area are described along with their distance from the Project and their reasons for designation in Table 3.2.2 below. Their location in relation the Project site and their geographic extent are illustrated in Anx Figure 2.

Table 3.2.2. Nationally designated sites within 5 km of the Project site.

Site name	Designation	Distance from the Project (km)	Site area (ha)	Description
Wytham Woods	SSSI	Adjoining the Project site	426.5	Wytham woods contains complex ancient woodland, wood pasture, common land and old limestone grassland. This mix of habitats supports a rich diversity of flora and fauna. Over 500 species of vascular plants have been recorded and over 60 species associated with ancient woodland; these include herb paris <i>Paris quadrifolia</i> , stinking iris <i>Iris foetidissima</i> and wood dog violet <i>Viola reichenbachiana</i> . Over 170 species of mosses and liverworts have been recorded including <i>Ulota crispa</i> and <i>Isothecium myurum</i> and over 250 species of fungus have been recorded. Further the insect fauna is extremely diverse, with over 800 species of butterflies and moths, more than 580 species of flies (Diptera), over 900 species of beetles, over 700 species of bees, wasps and ants (Hymenoptera), over 250 species of true bugs (Hemiptera), 27 species of earthworms and also more than 200 species of spiders have been recorded within this site.
Blenheim Park	SSSI	0.01	225.20	Blenheim Park is one of the finest areas of ancient oak-dominated pasture woodland in the country. The site also holds large lakes that support breeding and wintering birds. The invertebrate fauna contains several species associated with dead and decaying wood. At least twelve species of the vascular plant flora and sixteen species of epiphytic lichens are present.
Rushy Meadows	SSSI	0.65	8.74	Rushy meadows comprised of unimproved alluvial grasslands alongside the Oxford Canal, in which low-intensity, traditional management has produced rich meadow and fen communities containing several uncommon species. Most notable within this site is the <i>Cynosurus cristatus-Centaurea nigra</i> meadow and pasture community. Less common species present include pepper





Site name	Designation	Distance from the Project (km)	Site area (ha)	Description
				saxifrage Silaum silaus, devil's bit scabious Succisa pratensis, betony Stachys officinalis and early marsh orchid Dactylorhiza incarnata; of particular interest is water avens Geum rivale as this species is very uncommon in the Thames basin. Bird species of interest include breeding snipe Gallinago gallinago, grasshopper warbler Locustella naevia and over-wintering water-rail Rallus aquaticus.
Sheep's Bank (Formerly Holly Bank SSSI)	SSSI	0.75	5.1	This site has a species-rich grassland that is on steeply sloping land which is traditionally managed. Notably there is an ancient hedge that runs the length of the site and a small stream.
Wytham Ditches and Flushes	SSSI	0.86		This site contains species-rich eutrophic aquatic and fen flora, which are rare in the county. Further this site supports areas of flowering plants which are uncommon in central England, with at least one of these species having its only Oxfordshire population here. The main ditch contains a rich flora including the only significant populations of greater water-parsnip Sium latifolium and greater spearwort Ranunculus lingua in the county, together with other uncommon wetland species, such as brookweed Samolus valerandi and water violet Hottonia palustris. The open water retains a diverse flora. There is also a diverse variety of bryophyte and vascular plants present in a small field of tussocky, unimproved pasture.
Hurst Hill	SSSI	1.00	20.60	Classic site for the study of mosses and liverworts. The number of species recorded is remarkable for this part of Britain. The lichen flora also includes species which are uncommon in Oxfordshire.
Pixey and Yarnton Meads	SSSI	1.00	85.60	Pixey and Yarnton Meads is an internationally renowned site due to its unimproved floodplain meadows on alluvium over calcareous gravel, which are considered to be the one of the best remaining examples of neutral grassland in lowland England. Past management history is well known and has consisted of an annual cut for hay which is then grazed; this has produced botanically rich grassland. Notable plants present on site include the green winged orchid <i>Orchis morio</i> , autumn crocus <i>Colchicum autumnale</i> , sawwort <i>Serratula tinctoria</i> , pepper saxifrage and meadow rue <i>Thalictrum flavum</i> . The watercourses surrounding the Meads have tall emergent vegetation frequented by dragon and damselflies,





Site name	Designation	Distance from the Project (km)	Site area (ha)	Description
				including the banded demoiselle <i>Calopteryx</i> splendens.
Cassington Meadows	SSSI	1.06	7.03	Cluster of neutral hay meadows and fen which are surviving remnants of semi-natural vegetation in an area now characterised by intensive arable farming and gravel extraction. This type of meadow grassland is now a nationally threatened habitat. Many of the fen plants are found in the ditches where common frog breeds.
Wolvercote Meadows	SSSI	2.52	7.06	Meadows bordering the River Thames consisting of unimproved and semi-improved neutral grassland. The flora is rich with an abundance of herbs such as ox-eye daisy <i>Leucanthemum vulgare</i> , meadowsweet <i>Filipendula ulmaria</i> . The neighbouring meadows produce a wealth of wildlowers in unimproved pastures during early summer.
Port Meadow with Wolvercote Common & Green	SSSI	2.92	164.98	Port Meadow is used as a study site for the effects of grazing on plant communities as it has been grazed for over a millennium. The site consists of neutral grasslands situated in the Thames floodplain. This site is considered to be the one of the best examples of the influence grazing can have on species assemblages. There have been a few management practices at Wolvercote common but largely the site has remained as unimproved permanent pasture with continuous grazing. Plant species occurring in nearby hayfields include cowslip <i>Primula veris</i> , adder's-tongue <i>Ophioglossum vulgatum</i> and greater burnet <i>Sanguisorba officinalis</i> are rare on the grazed land.
Sturt Copse	SSSI	3.34	6.48	An important remnant of the ancient hanging ashwych elm woodlands of the Evenlode Valley with several uncommon plant species. It is an interesting example of the few remaining woods of this group on the steep Jurassic limestone slope above the river. In grassland areas wildflowers such as wild liquorice Astragallus glycyphyllos, pyramidal orchid Anacamptis pyramidalis, wild thyme Thymus serpyllum, rock rose Helianthemum numularium, uncommon grey sedge Carex grayi can be found. The woodland has some wildflowers associated with woodland, the canopy is of ash with some oak and a shrub layer of hazel.
Cothill Fen	SSSI (and SAC)	3.65	43.26	Supports outstanding examples of nationally rare calcareous fen and moss-rich mire communities together with associated wetland habitats. Exhibits succession from open water to gen, scrub to water





Site name	Designation	Distance from the Project (km)	Site area (ha)	Description
				table. Over 330 vascular plants have been recorded.
Hook Meadow and The Trap Grounds	SSSI	3.97	11.85	The site consists of a series of unimproved neutral meadows that have become increasingly rare following agricultural improvement. Insects recorded include hoverflies <i>Chrysogaster hirtella</i> which is associated with marshes and <i>Platycheirus fulvieventris</i> which is uncommon in Oxfordshire.
Out Wood	SSSI	3.79	19.16	Out Wood is located east of Charlbury, Oxfordshire. It is a remaining fragment of a medieval forest. Current management includes deer exclusion and coppicing. The ground flora is species-rich, including bluebell <i>Hyacinthoides non-scripta</i> .
Middle Barton Fen	SSSI	3.85	11.58	Middle Barton Fen is an area of good quality fen and wet grassland habitat. The site is located next to the Cockley Brook along which there is a bank of limestone grassland.
Stonesfield Common, Bottoms and Banks	SSSI	3.92	26.86	Stone fields common is a series of steeply sloping valleys and banks, mostly of unimproved limestone grassland and scrub. There is also an area of semi-natural ancient woodland. The grassland within the site is mainly upright brome Bromus erectus, and herbs such as field scabious Knautia arvensis, greater knapweed Centaurea scabiosa, lady's bedstraw Galium verum and pyramidal orchid.
Appleton Lower Common	SSSI	4.33	47.28	Fine example of broadleaved woodland on the Oxford Clay which has remained unmodified by conifer planting or clear felling. Wet ash <i>Fraxinus</i> excelsior wych elm <i>Ulmus glabra</i> woodland, a relatively uncommon woodland type is well represented.
Whitehill Wood	SSSI	4.47	3.4	Whitehill wood is an area of limestone grassland and woodland on the northern valley side of the River Evenlode.
Holly Court Bank	SSSI	4.72	4.42	This site consists of limestone grassland (national nature conservation priority) and woodland. Areas of scrub are now present within the site. Wildflowers such as wild liquorice, pyramidal orchid, wild thyme and rock rose are found here, alongside the uncommon grey sedge. The woodlands have a canopy of ash with some oak and a shrub layer of hazel (broadleaved woodland national nature conservation priority). There are a few woodland wildflowers including dog's mercury, yellow archangel and spurge laurel found here.





Non-statutory designated sites

- 3.1.7 The desk study identified 57 non-statutory designated sites within 2 km of the Project including four sites which partially overlap with the site, and a further eight sites which adjoin the Project site.
- 3.1.8 The sites are listed along with designation, distance from the Project and a brief description in Table 3.2.3. Their location in relation the Project site and their geographic extent are illustrated in Anx Figure 3.

Table 3.2.3. Non-statutory designated sites within 2 km of the Project site.

Site name	Designation	Distance from the Project (km)	Site area (ha)	Description
Glyme and Dorn Valleys	СТА	Partially overlapping the site at Stratford Lane south of Wooton	437.07	Habitats at Glyme and Dorn Valleys include limestone grassland, lowland meadows, fen, swamp, reedbeds, woodland and eutrophic stand water. The Dorn is known to support a population of the native white clawed crayfish.
Oxford Meadows and Farmoor	СТА	Partially within the site around Swinford between Eynsham and Wytham Woods.	1653	This area includes the Thames Valley to the West of Oxford as far as Farmoor. It includes the Oxford Meadows Special area of Conservation, Farmoor Reservoir and gravel working between Yarnton and Cassington. Habitats include: lowland meadows, floodplain grazing marsh, euphoric standing water, reedbeds.
Wytham Hill	СТА	Partially within the site around Swinford between Eynsham and Wytham Woods.	903	Woodland within the woods of Wytham SSSI, wood pasture and parkland, limestone grassland and fen.
Oxford Heights West	СТА	Partially within the site at the southern end around Denman's copse.	3297	This includes Cumnor Hill, Boars Hill and the woodlands to the South. This area has the ain concentration of fen in Oxfordshire. Habitats also include wet woodland, lowland mixed deciduous woodland, acid grassland and heathland.
Sansoms Lane Green Lane	CDDWS	Adjacent to boundary between Woodstock and Shipton- on-Cherwell	1.78	This site consists of a double line of hedgerow with a public right of way running through the centre. These hedgerows are species rich with a good range of woody species, a herb layer including several species indicative of older hedges. Notable fauna species recorded on site include house sparrow and barn owl.





Site name	Designation	Distance from the Project (km)	Site area (ha)	Description
Weavely Furze Firewood Allotments	CDDWS	Adjacent to boundary between Woodstock and Shipton- on-Cherwell	1.82	This site is a small community woodland, it is open to the public and volunteers carry out management activities such as coppicing. There is a block of broadleaved semi-natural woodland with an open ash canopy and shrubs. There is also a stream, a seasonal pond and some deadwood piles. The main section of the site is scrub, young planted trees, with small areas of grass along the paths, there is also a block of hazel coppice.
Smith Hill Copse	LWS	Adjacent to southern boundary.	5	One of a group of small ancient woodland sites south of Farmoor. They have been continuously wooded since 1600AD and are classed as ancient. Such woodland is a national nature conservation priority. The woodland canopy is composed of oak, ash and field maple. There are good patches of bluebells.
Pinsley Wood	LWS	Adjacent to the western boundary near Long Hanborough.	Not provided	Pinsley Wood is set on gently sloping Oxford Clay, cornbrash and Forest marble. The site contains woodland with an oak and ash canopy with sheets of bluebells. Further many ancient woodland species have been recorded within the site. The ground flora is rich and includes some rare plant meadow saffron is found here with other uncommon species including thin-spiked wood sedge, herb Paris, early-purple orchid and wild service tree. The site supports some butterfly species with records for purple hairstreak (1993), silverwashed fritillary (2015), white admiral (2015) and wood white (1992). Further there are a good range of Invertebrate and fungi species recorded in the wood.
Bladon Heath	LWS	Adjacent to and bounded by the Project site on all sides	Not provided	Bladon Heath is set on a hilltop area of glacial sand and gravel over the Oxford Clay. The area has been largely planted with conifers and only small areas of slightly acid grassland remain along the rides. Heath bedstraw, tormentil, broom and gorse are still present with other heathland species that were previously present being lost. The woodland includes some semi-natural areas of mature oak with hazel coppice. The woodland field flora is species-rich with bluebell, greater stitchwort, wood speedwell, primrose, wood spurge, honeysuckle and enchanter's-nightshade. Many ancient woodland species have been recorded here; with 27 being seen in 2015.





Site name	Designation	Distance from the Project (km)	Site area (ha)	Description
Burleigh Wood	LWS	Adjacent to and bounded by the Project site on all sides	Not provided	Burleigh Wood is an ancient woodland, set on a hill to the south of Bladon, West Oxfordshire. The wood has been largely replanted with conifers and, in one compartment, beech, there are also mixed plantations with beech, oak and various conifers. To the south-east corner remains some semi-natural oak wood with field maple, crab-apple and hazel coppice which extends along the eastern edge. Strips of broadleaved woodland are present along the block edges adjacent to the rides and include species such as wild service tree and aspen. Further 28 ancient woodland indicator species have been recorded here such as the early-purple orchid, wood anemone, wood spurge and wood speedwell. The north-south ride is very wide and includes wet grassland species such as bugle, meadow vetchling, cuckooflower, greater bird's-foot trefoil and common marsh-bedstraw.
City Farm	LWS	Adjacent to the western Project site north of Eynsham	Not provided	This site consists of two arable fields. These fields support populations of arable wildflowers that are recognised as being of European importance (based on the Plantlife important arable plant areas scoring system). The most endangered species present are Annual knawel (Endangered): Nettle-leaved goosefoot, Corn marigold and Corn spurrey (Vulnerable); Dwarf spurge and Field woundwort (Near threatened) and Blue pimpernel (Nationally Scarce), there is also a wide diversity of other arable wildflower species. Lapwings and skylark are known to nest here
Denman's Copse	PLWS	Adjacent to the southern boundary.	Not provided	No information provided
Yarnton Sidings	PCDDWS	0.01	Not provided	The site is part of the active Cotswold railway line. Along the edge of the track, the vegetation ranges with areas of bramble scrub, tall herb with stands of rosebay willowherb, rough grassland with false oat-grass and a developing open grassland sward. The most diverse area is to the north of the track where an open colonising sward is establishing. A range of species typical of this type of habitat and calcareous grassland are present including blue fleabane, pyramidal orchid, greater knapweed, pale toadflax and Wild liquorice is also present.





Site name	Designation	Distance from the Project (km)	Site area (ha)	Description
Blenheim and Ditchley Parks	СТА	0.01	183.11	Blenheim and Ditchly parks comprise of historic parkland, woodland, limestone parkland and species rich hedgerows. Ditchley park also has two stream valleys and arable wildflowers.
Farmoor Reservoir	LWS	0.02	203.7	Large open water to the west of Oxford and adjacent to the River Thames. Important for birds and attracts wildfowl including coot, goldeneye and tufted duck. It includes a series of shallow pools valuable for birds and freshwater invertebrates. To the south is Bushy Leaze Copse, a semi-natural broadleaved woodland.
Acrey Waters	LWS	0.04	Not provided	Acrey waters is a disused gravel pit and has many pools of open water which are bordered by wooded banks and areas of wet woodland. The pools have sections of shallow water, abundant aquatic and emergent wetland plants such as water lilies, broadleaved pondweed, flag iris and marsh horsetail. Rich areas of water such those present at Acrey waters are a national priority for nature conservation. Further the site supports a good range of dragonflies and damselflies.
Begbroke Wood	LWS	0.06	Not provided	Begbroke wood is a large woodland on heavy soils, over level ground. The canopy is largely oak but varies a little, there are some areas of conifers, mainly Scots pine and larch. The understory consists of hazel and goat willow, with bluebell displays. The wood is included on the Ancient Woodland Inventory and includes ancient woodland indicator species. The wood is important for the presence of silver-washed fritillary. There is a wide grassland clearing that is occupied by meadowsweet and common spotted orchids.
Wootton Jubilee Fields	LWS	0.11	11.53	This site is comprised of limestone grassland, wet meadows, with patches of scrub and woodland, located next to the rivers Glyme and Dorn. Priority species present on site include the bullfinch (on the Red List of Birds of Conservation Concern) and three rare insect species which are potential Red Data Book Species).
Swinford Farm Meadow	LWS	0.15	Not provided	Swinford Farm Meadow is a ridge and furrow grassland beside the River Thames. There are areas of pond-sedge swamp which support purple loosestrife, marsh horsetail and sharp flowered rush. The most diverse areas of





Site name	Designation	Distance from the Project (km)	Site area (ha)	Description
				grassland include great burnet, lady's bedstraw, black knapweed, pepper saxifrage, meadow sweet and yellow rattle. Across the site several wetland species are present including square-stalked St-John's wort, common marsh bedstraw, brown sedge, wild angelica and oval sedge. Tall hawthorn hedgerows boarder the site.
Cassington Gravel Pits South (Smiths Pits)	LWS	0.15	Not provided	The Cassington Gravel Pits are one of Oxfordshire's oldest disused gravel works. Smith's Concrete occupies the northern end of the site, to the east is the large area of open water. The River Evenlode lies to the western edge of the site. Three shallow lakes are surrounded by areas of higher ground. Willow and birch scrub have developed on the higher ground, together with extensive areas of reedbed, grassy area at the most northern edge are where hundreds of common spotted orchids and many bee orchids were seen in 1986. The mix of habitats and undisturbed nature of the site has resulted in the area becoming very important for wetland birds, including the first confirmed breeding of water rail in Oxfordshire.
Long Mead	LWS	0.16	Not provided	Long Mead consists of a species rich floodplain hay meadow adjacent to the River Thames, many common species are found here alongside species associated with more traditionally managed meadows such as great burnet, sneezewort, quaking grass and pepper saxifrage. There is a meandering stream channel that supports damp-loving plants including marsh marigold, ragged robin, water forget-me-not, cuckooflower, common spike rush and several species of sedge including slender tufted sedge. Further, the riverside has hemlock water-dropwort and records for stingless nettle.
Pasture near Chawley	LWS	0.24	1.7	Banks of dry grassland with a spring and stream bordered by marshy habitat dominated by rushes and sedges. This type of wetland habitat is a national priority for nature conservation.
South Freeland Meadows	LWS	0.29	Not provided	This site consists of two hay meadows situated on old ridge and furrow on the Oxford Clay. The sward has a number of species usually only found in meadows that have not been ploughed, re-seeded or treated with artificial fertiliser for many years; such as devil's bit





Site name	Designation	Distance from the Project (km)	Site area (ha)	Description
				scabious, sneezewort and pignut. Wetter areas have bugle, wild angelica, greater bird's-foottrefoil and ragged robin. Management has improved the diversity further with betony, tormentil and yellow rattle also now present. A seasonal pond in the northern field has previous records for a rare plant, ivy-leaved water crowfoot <i>Ranunculus hederaceus</i> . The field boundaries include a ditch to the east and thick hedges.
Frogwelldown Lane	CDDWS	0.32	Not provided	The site is a green lane to the west of Yarnton, with a public right of way running along its length. There are sections of hedgerows that widen to scrub and woodland. The hedgerows have a mix of hawthorn, blackthorn, English elm, spindle, elder, ash and field maple. Whilst the path verges consist of rough grassland, tall herb and bramble. Woodland herbs present include bluebell, primrose, goldilocks buttercup and three-nerved sandwort.
Hollybank Marsh	LWS	0.33	1.78	Holly Bank Marsh is a collection of wet marshy fields adjacent to the River Dorn. Species rich habitats present are hay-meadow, reed-bed and tall herb fen. Notable species on site include southern marsh orchid, early marsh orchid, betony, ragged robin and marsh valerian. The site has a rich invertebrate presence with ringlet and marbled white butterflies.
Lower Cherwell Valley	СТА	0.37	232.09	Habitats present at Lower Cherwell Valley include fen, swamp, reedbeds, floodplain grazing marsh, limestone grassland and eutrophic standing water.
Chawley footpath	LWS	0.38	3.2	Dry limestone grassland and a number of flushes with marshy habitat. Both habitats are national nature conservation priorities. Wildflowers present include ragged robin, common spotted orchid, water mint.
Long Copse	LWS	0.38	3.3	Ancient woodland occupying a steep sided valley. The woodland is a mixture of broadleaved species. Woodland wildflowers include bluebell, wood anemone, marsh marigold.
Long Leys Farm Meadows	LWS	0.39	4.4	Two traditionally managed hay meadows lying on clay, sloping gently down towards the River Thames. The sward is dominated by native species. There are previous records for adder's-tongue fern and yellow-wort.





Site name	Designation	Distance from the Project (km)	Site area (ha)	Description
Bunkers Hill Quarry	LWS	0.39	63.39	Bunkers Hill Quarry is a large limestone quarry, which supports a range of habitats including open water, wetland, calcareous grassland and open ground. These habitats provide opportunities for birds with this site being used by overwintering, migrating and breeding birds (as reported by the Oxford Ornithological Society). There are rare species present within the quarry grounds such as wild liquorice and 1990 records show present of the nationally scarce blue-tailed damselfly, the white-legged damselfly and a leafhopper <i>Macrosteles frontalis</i> .
Tackley Heath	LWS	0.40	17.12	This site is mainly comprised of woodland and bracken on Oxford Clay which has become quite acidic. Present are large areas of mixed scrub, mature oak trees, hazel and an overgrown pond. Along the open paths some species associated with acidic habitats (that are unusual in Oxfordshire) have been recorded previously; bog moss Sphagnum (in the 1950s) and heath bedstraw (1986).
Cassington to Yarnton Gravel Pits	LWS	0.49	Not provided	This site comprises of a series of river terrace gravel pits, close to the Thames corridor. There are three mains lakes, one is large steep-sided, the central lake has gently shelving edges and the other is an older conservation lake. There is also a series of silt lagoons, restored with young plantation. The site provides important habitat for birds, especially wintering wildfowl with records including teal, pintail, shoveler, pochard and goldeneye. Records also show the site is frequented by oystercatcher, common tern, turtledove and black-headed gulls. The banks support a fringing vegetation of diverse flora. Notable species include cyperus sedge, round fruited rush, brookweed and celery-leaved water-crowfoot.
Eynsham Wood	WTR	0.74	Not provided	Eynsham Wood is a young, planted wood. This woodland is part of the Woodland Trusts 'Woods on Your Doorstep' millennium Project. Present are grass rides and paths that pass around and through the maturing woodland.
Langford Meadows	LWS	0.86	Not provided	Langford Meadow contains areas of tall herb fen with areas of lowland meadow, rough grassland, alongside small areas of scrub and a wooded strip. To the south-east of the site there is a patch of species-rich unimproved





Site name	Designation	Distance from the Project (km)	Site area (ha)	Description
				grassland. Further the site also contains species-rich hedgerows, wet ditches and ponds. These habitats support some bird species such as the breeding reed bunting and overwintering snipe.
Woodstock Water Meadows	LWS	0.92	Not provided	Woodstock water meadows consists of wet meadows, woodland, scrub, wet ditches, semi-improved grassland, broadleaved plantation woodland, tall herb and two ponds. These low lying water meadows are of historic interest as they are mentioned in written records of the 15th century (24th May 1453). The invasive Himalayan balsam is now present creating some areas of species-poor habitat.
Thames Island west of Farmoor	LWS	0.94	2.3	The site consists of wet woodland and reedbed along the edges of an ox-bow lake formed by a tight bend of the River Thames. The old river channel forms a secluded lake. The dense fringing swamps are species-rich, providing important habitat for birds and invertebrates.
Bletchingdon Quarry and Fen	LWS	0.99	4.72	This site is a disused limestone quarry. Areas of the site have been levelled for scrambling tracks, which are used for off-road motor sports and has annual plants of neutral soils. The site also includes area of pond sedge-dominated fen adjacent to the river, steep bank, mixture of grassland, tall herb, short ephemeral vegetation and scrub, as well as a rich wildflower areas. A variety of birds have been recorded here including sedge warbler, reed warbler, grasshopper warbler, whitethroat, garden warbler, blackcap, chiffchaff, greenfinch, goldfinch, reed bunting, yellowhammer, kestrel, grey partridge, mistle thrush, dunnock, greater spotted woodpecker and green woodpecker.
Somerford Mead	LWS	1.10	Not provided	This floodplain hay meadow is an experimental re-creation of the meadow foxtail/great burnet (MG4) community on a field that has previously been under an arable regime. The site was originally a hay meadow, which had then been under arable management for several years the experimental management began. Locally harvested Oxey Mead was scattered on Somerford Mead. A wide range of characteristic hay meadow species are now present on site, including great burnet, pepper saxifrage, yellow rattle, meadow crane's-bill, cowslip, quaking grass, black knapweed and





Site name	Designation	Distance from the Project (km)	Site area (ha)	Description	
				common bird's-foot-trefoil. The sward is grass dominated with some broadleaved species.	
Riverside Meadow	PCDDWS	1.30	3.42	Riverside meadow is an area of rough, wet meadow alongside patches of scrub. This site is located along the Oxford Canal and appears unmanaged with elements of fen. The wetland and present of lowland fen are habitats of principal importance (NERC).	
Blenheim Park - New Park and part of Great Park	PLWS	1.32	57.98	This site is parkland with areas of woodland, grassland with areas of species-rich calcareous grassland and a pond. There are large areas of lowland wood-pasture and parkland (UK BAP habitat). The site supports old trees alongside some veteran trees, with features such as dead wood rot holes and los of the crown. There are some steeply sloping calcareous banks that are unimproved with flower-rich swards.	
Louie Memorial Fields	LWS	1.32	2.8	Woodland and scrub with a small pond, areas of fen and rough grassland.	
Oxey Mead	BBOWT	1.33	Not provided	No information provided	
Wolvercote Mead	LWS	1.46	Not provided	No information provided	
Wytham Park	LWS	1.47	77	Fine parkland with a number of veteran oak trees. Trees have veteran features such as dead wood, rot holes and loss of the crown. Springs are present on the slope with abundant hard rush, creeping bent and Yorkshire fog.	
Worcester Hill Bank and Marshes	LWS	1.48	9.61	This site is made up of three steep limestone banks which support lowland calcareous grassland, two fen areas, ranker calcareous grassland, semi-improved grassland and scattered scrub. The southern fen is the more diverse of the two fens which has presence of avens, southern marsh orchid, bird's-foottrefoil, wild angelica, water mint, fen bedstraw and previous records of bottle sedge.	
Lincelane Copse	PCDDWS	1.52	1.98	This site lies between the Oxford Canal and Lince Lane. The habitat is mainly a narrow strip of semi-natural woodland. Lowland mixed deciduous woodland is a habitat of principal importance (NERC).	





Site name	Designation	Distance from the Project (km)	Site area (ha)	Description	
Pixey Mead	BBOWT	1.55	Not provided	Part of the Pixey and Yarnton Meads SSSI and comprising unimproved floodplain meadows on alluvium over calcareous gravel are internationally renowned. They are amongst the best examples of neutral grassland in lowland England.	
Thrupp Community Woodland	CDDWS	1.58	Not provided	This woodland is a broadleaved plantation. It dominated by ash and hazel with crack willow oak and smaller amounts of silver birch and wild cherry. There is also presence of alder and some scrubby areas with hornbeam and dogwood. The site is frequented by a range of bird species including mallard, long-tailed tit, willow warbler, starling and chiffchaff. There are also previous records of breeding kingfisher, grey wagtail, willow tit, marsh tit, blackcap, garden warbler, whitethroat, sedge warbler, tree creeper, song thrush, green woodpecker, cuckoo, bullfinch and dunnock.	
Wet Wood and Swamp near Yarnton	LWS	1.63	Not provided	No information provided	
Enslow Marsh	LWS	1.70		Enslow marsh consists of sedgebeds, tall mixed fen vegetation, wet woodland, scrub and planted broadleaved trees. The locally scarce bottle sedge and locally rare eared willow and cultivated vetch have been recorded here. The sedgebeds provide breeding habitat for birds such as reed bunting and sedge warbler. Further the woodland and scrub habitat support song thrush, bullfinch and a variety of warblers. Water rail and over-wintering snipe have previously been recorded on site. The adjacent Oxford canal have records of water vole.	
Upper Thames	СТА	1.73	2284	Riverside between Northmoor and the County boundary. One of the key habitats in this area is lowland meadows. Wet grassland and floodplain grazing marsh are also present. This area has been important for wading birds. Curlew nest in the area.	
Wychwood and Lower Evenlode	СТА	1.74	Not provided	Wychwood & Lower Evenlode consists of ancient woodland, historic parkland, limestone grassland, species-rich hedgerows with some heath and acid grassland areas.	





Site name	Designation	Distance from the Project (km)	Site area (ha)	Description
Kidlington Copse (Parkhill Copse)	PCDDWS	1.77	Not provided	This site is a small block of semi-natural woodland by Parkhill recreation ground in Kidlington.
Glyme Valley, Glympton	LWS	1.84	5.74	The site is located along the edges of the river Glyme. The Glyme Valley is comprised of wet woodland, broadleaved plantation, lowland mixed deciduous woodland, pond-sedge fen, wet grassland, a pond and sections of the river Glyme. The riverbanks are well-vegetated, and the site is known to be important for bird species including the yellowhammer. The rare dragonfly species, the downy emerald, has been recorded from this area.
Harcourt Hill Scrub and Fen	LWS	1.91	23.3	A good range of wetland habitats including open water, reedbed and wet woodland with species-rich scrub and broadleaved seminatural woodland. The wet woodland has abundant bryophytes and great horsetail with small amounts of jointed rush, floating sweet grass, marsh thistle and brooklime.
Loop Farm Flood Meadows	LWS	1.98	Not provided	No information provided
Cotswold Valleys	NIA	0.22	31671.47	Comprises the river valley systems of the rivers Evenlode, Windrush, Con, Churn and the By Brook, and extends through Oxfordshire, Wiltshire and Bath and North East Somerset. As well as the rivers which are key examples of oolitic limestone rivers, the designation also includes woodland grasslands and water meadows.

Local Plan Designations

West Oxfordshire Local Plan

- 3.1.9 The West Oxfordshire Local Plan identifies Ancient Woodland sites, Nature Improvement Areas (NIA) and Green belt.
- 3.1.10 All the Ancient Woodland sites in West Oxfordshire are included on the Natural England Ancient Woodland Inventory and are considered separately under Ancient Woodland (see below).
- 3.1.11 There is one NIA within 2 km of the Site, the Cotswold Valleys NIA located 210 m to the northwest of the Site. Only one part of the Cotswold Valleys NIA falls within 2 km of the Site specifically the area encompassing the river valley





of the River Evenlode which extends through parts of Oxfordshire and Gloucestershire. The NIA is shown on Anx Figure 4.

3.1.12 The West Oxfordshire Green Belt encompasses a single large area northwest of the city of Oxford and covering most of the prosed development Site between the A44 on the north to Eynsham on the south. The Green Belt is shown on Anx Figure 4.

Cherwell Local Plan

3.1.13 The Cherwell plan contains several policies relating to biodiversity and nature conservations. These refer variously either to designated sites or priority habitats considered separately in this report, or to features which are not mapped (such as general habitat types) which may or may not have biodiversity value. These features are addressed separately in the Phase 1 Habitat Survey and any subsequent assessment of features identified in that survey and the Ecology and Nature Conservation chapter of the ES.

Vale of white Horse Local Plan

- 3.1.14 The Vale of White Horse Local Plan includes an area of the Oxford Green Belt extending from just south of Cassington down as far as Abingdon and encompassing the southern part of the Site in this area. The green belt is shown on Anx Figure 4.
- 3.1.15 The Vale of white Horse Local Plan also refers to Green Infrastructure which is described in the 2017 Green Infrastructure Strategy (South Oxfordshire and Vale of White Horse District Councils, 2017). In relation to Ecology and nature conservation the Green Infrastructure comprises statutory and no-statutory designations. These are considered under the relevant headings above.

Ancient woodland

3.1.16 The desk study identified 91 ancient woodland inventory sites within the Study Area of which one (Bladon Heath) falls partly within the Project site.

The geographical location and extent of the ancient woodland sites identified in the desk study are shown in Anx Figure 3.

Ancient tree inventory

3.1.17 The desk study identified five ancient tree inventory trees within 50 m of the site. All five trees are classed as veterans. Two veteran trees are situated within the Project site near to Swinford. The remaining three trees are outside the Project site. The trees are shown on Anx Figure 5.

Priority habitats

3.1.18 The desk study identified four priority habitats within the Project site: coastal and floodplain grazing marsh, possible priority grassland habitat, lowland mixed deciduous woodland and rivers. A further 12 priority habitats are present





outside of the Site but within 2 km of the Project site. Priority habitats and their extents within the search area are listed in Table 3.2.4 and shown on Anx Figure 6 to Anx Figure 8.

Table 3.2.4. Priority habitats within 2 km of the Project site

Priority Habitat	Extent within the Project site (ha)	Extent within 2 km of the Project site (Ha)
Coastal And Floodplain Grazing Marsh	20.24	387.97
Possible Priority Grassland Habitat	3.42	373.51
Lowland Mixed Deciduous Woodland	0.14	554.71
Rivers	0.01	0.18
Eutrophic Standing Waters	0	276.51
Wood-Pasture And Parkland	0	152.46
Lowland Meadows	0	67.34
Lowland Calcareous Grassland	0	34.18
Lowland Fens	0	26.29
Wet Woodland	0	18.91
Lowland Hay Meadows (H6510)	0	17.01
Traditional Orchards	0	9.82
Lowland Beech And Yew Woodland	0	8.28
Reedbeds	0	2.72
Open Mosaic Habitats On Previously Developed Land	0	2.59
Lowland Dry Acid Grassland	0	2.25
Possible Priority Habitat	0	0.18

Protected and notable species

Flora

- 3.1.19 The ecology desk study identified records of 88 flowering plants, one fern eight fungi and 13 lichens of conservation interest or concern within the Study Area.
- 3.1.20 The records include 18 priority species, six species protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended), three nationally rare species, 13 nationally scarce species, 82 Red List species, 21 species scarce in Oxfordshire and 20 species which are rare in Oxfordshire. Some species come under more than one of these categories.
- 3.1.21 Of these species seven flowering plants have been recorded within the Project site.





3.1.22 The locations of the records are shown on Anx Figure 9 and Anx Figure 10 with the records summarised in Table 3.2.1.

Table 3.2.5. Protected and notable plants, lichens and fungi within 2 km of the Project site.

Group	Common name	Scientific name	No. of records	Nearest distance from the ProjectProject (km)	Year of most recent record	Conservation status
Fern	Intermediate polypody	Polypodium interjectum	4	0.93	2017	Oxon-S
Flowering Plant	Chicory	Cichorium intybus	2	0 (1 record)	2017	RL-ENG-post2001- VU
Flowering Plant	Wild Strawberry	Fragaria vesca	20	0 (1 record)	2022	RL-ENG-post2001- NT
Flowering Plant	Corn Mint	Mentha arvensis	7	0 (1 record)	2017	RL-ENG-post2001- NT
Flowering Plant	Hoary Plantain	Plantago media	14	0 (1 record)	2022	RL-ENG-post2001- NT
Flowering Plant	Field Scabious	Knautia arvensis	18	0 (2 records)	2022	RL-ENG-post2001- NT
Flowering Plant	Bluebell	Hyacinthoides non-scripta	37	0 (3 records)	2022	WCA8
Flowering Plant	Rye Brome	Bromus secalinus	1	0 (1 record)	2017	Oxon-S, NS, RL- ENG-post2001-NT, RL-GB-post2001-NT
Flowering Plant	Dwarf Spurge	Euphorbia exigua	12	0.01	2022	RL-ENG-post2001- VU, RL-GB- post2001-VU
Flowering Plant	Field Pepperwort	Lepidium campestre	3	0.01	2019	RL-GB-post2001-NT
Flowering Plant	Narrow- fruited Water- starwort	Callitriche palustris	1	0.02	2017	NR, RL-GB- post2001-VU
Flowering Plant	Ragged- Robin	Silene flos-cuculi	22	0.02	2023	RL-ENG-post2001- NT
Flowering Plant	Bifid Hemp- nettle	Galeopsis bifida	2	0.03	2019	Oxon-S
Flowering Plant	Thin-spiked Wood- sedge	Carex strigosa	6	0.04	2022	Oxon-S
Flowering Plant	Meadow Saffron	Colchicum autumnale	7	0.04	2019	RL-GB-post2001-NT





Group	Common name	Scientific name	No. of records	Nearest distance from the ProjectProject (km)	Year of most recent record	Conservation status
Flowering Plant	Stinking Hellebore	Helleborus foetidus	4	0.05	2019	NS
Flowering Plant	Cornflower	Centaurea cyanus	5	0.10	2023	S41
Flowering Plant	Maple- leaved Goosefoot	Chenopodium hybridum	3	0.10	2016	Oxon-R
Flowering Plant	Nettle- leaved Goosefoot	Chenopodium murale	2	0.10	2016	RL-ENG-post2001- EN, RL-GB- post2001-EN
Flowering Plant	Crosswort	Cruciata laevipes	13	0.10	2017	RL-ENG-post2001- NT
Flowering Plant	Treacle- mustard	Erysimum cheiranthoides	2	0.10	2016	RL-ENG-post2001- NT
Flowering Plant	Boreau's Ramping- fumitory	Fumaria muralis subsp. boraei	1	0.10	2016	Oxon-R
Flowering Plant	Corn Marigold	Glebionis segetum	14	0.10	2019	RL-ENG-post2001- VU, RL-GB- post2001-VU
Flowering Plant	Corn Spurrey	Spergula arvensis	9	0.10	2019	RL-ENG-post2001- VU, RL-GB- post2001-VU
Flowering Plant	Devil's-bit Scabious	Succisa pratensis	13	0.10	2022	RL-ENG-post2001- NT
Flowering Plant	Blue Pimpernel	Anagallis arvensis subsp. foemina	2	0.11	2016	Oxon-S, NS, RL- ENG-post2001-DD,
Flowering Plant	White Ramping- fumitory	Fumaria capreolata	1	0.11	2014	Oxon-R
Flowering Plant	Rock Stonecrop	Sedum forsterianum	1	0.11	2017	NS
Flowering Plant	Greater Spearwort	Ranunculus Iingua	4	0.13	2020	Oxon-S
Flowering Plant	Annual Knawel	Scleranthus annuus	2	0.13	2019	S41, Oxon-R, RL- ENG-post2001-EN, RL-GB-post2001-EN





Group	Common name	Scientific name	No. of records	Nearest distance from the ProjectProject (km)	recent	Conservation status
Flowering Plant	Field Woundwort	Stachys arvensis	4	0.13	2019	Oxon-R, RL-ENG- post2001-NT, RL- GB-post2001-NT
Flowering Plant	Nodding Bur- marigold	Bidens cernua	1	0.14	2018	Oxon-R
Flowering Plant	Common Ramping- fumitory	Fumaria muralis	1	0.14	2016	Oxon-R,
Flowering Plant	Wild Pansy	Viola tricolor	1	0.14	2016	Oxon-S, RL-ENG- post2001-NT, RL- GB-post2001-NT
Flowering Plant	Tormentil	Potentilla erecta	16	0.24	2021	RL-ENG-post2001- NT
Flowering Plant	Annual Knawel	Scleranthus annuus subsp. annuus	1	0.27	2017	S41, Oxon-R, RL- ENG-post2001-EN, RL-GB-post2001-EN
Flowering Plant	Quaking- grass	Briza media	16	0.28	2022	RL-ENG-post2001- NT
Flowering Plant	Tubular Water- dropwort	Oenanthe fistulosa	7	0.28	2023	S41, RL-ENG- post2001-VU, RL- GB-post2001-VU
Flowering Plant	Strawberry Clover	Trifolium fragiferum	1	0.28	2023	RL-ENG-post2001- VU, RL-GB- post2001-VU
Flowering Plant	Sainfoin	Onobrychis viciifolia	3	0.29	2019	RL-ENG-post2001- VU, RL-GB- post2001-VU
Flowering Plant	Narrow- leaved Water- plantain	Alisma lanceolatum	5	0.32	2021	Oxon-S
Flowering Plant	Night- flowering Catchfly	Silene noctiflora	1	0.32	2015	Oxon-S, RL-ENG- post2001-VU, RL- GB-post2001-VU
Flowering Plant	Large- leaved Lime	Tilia platyphyllos	2	0.36	2015	NS
Flowering Plant	Hairlike Pondweed	Potamogeton trichoides	1	0.38	2019	Oxon-R





Group	Common name	Scientific name	No. of records	Nearest distance from the ProjectProject (km)	recent	Conservation status
Flowering Plant	Narrow- leaved Water- dropwort	Oenanthe silaifolia	5	0.40	2022	Oxon-S, NS
Flowering Plant	Marsh Ragwort	Jacobaea aquatica	2	0.44	2021	RL-ENG-post2001- NT
Flowering Plant	Goldenrod	Solidago virgaurea	1	0.44	2020	Oxon-R, RL-ENG- post2001- NT,
Flowering Plant	Cultivated Vetch	Vicia sativa subsp. sativa	1	0.45	2015	Oxon-R
Flowering Plant	Narrow- leaved Meadow- grass	Poa angustifolia	2	0.47	2019	Oxon-S
Flowering Plant	Fritillary	Fritillaria meleagris	7	0.53	2018	NS
Flowering Plant	Wood-sorrel	Oxalis acetosella	9	0.55	2022	RL-ENG-post2001- NT
Flowering Plant	Common Valerian	Valeriana officinalis	10	0.55	2022	RL-ENG-post2001- NT
Flowering Plant	Lesser Spearwort	Ranunculus flammula	2	0.56	2020	RL-ENG-post2001- VU
Flowering Plant	Common Rock-rose	Helianthemum nummularium	4	0.59	2019	RL-ENG-post2001- NT
Flowering Plant	Lizard Orchid	Himantoglossum hircinum	8	0.68	2023	WCA8, Oxon-R, NS,
Flowering Plant	Common Eyebright	Euphrasia nemorosa	1	0.73	2022	RL-ENG-post2001- NT, RL-GB- post2001-NT
Flowering Plant	Marsh Willowherb	Epilobium palustre	2	0.88	2020	Oxon-R
Flowering Plant	Frogbit	Hydrocharis morsus-ranae	1	0.88	2020	Oxon-R, RL-ENG- post2001-VU, RL- GB-post2001-VU
Flowering Plant	Marsh Dock	Rumex palustris	1	0.88	2016	Oxon-R
Flowering Plant	Grey Club- rush	Schoenoplectus tabernaemontani	5	0.88	2016	Oxon-R





Group	Common name	Scientific name	No. of records	Nearest distance from the ProjectProject (km)	Year of most recent record	Conservation status
Flowering Plant	Greater Water- parsnip	Sium latifolium	9	0.88	2020	S41, Oxon-R, NS, RL-ENG-post2001- EN, RL-GB- post2001-EN
Flowering Plant	Horned Pondweed	Zannichellia palustris	2	0.88	2016	Oxon-S
Flowering Plant	White Helleborine	Cephalanthera damasonium	10	0.94	2022	S41, RL-ENG- post2001-VU, RL- GB-post2001-VU
Flowering Plant	Rush- leaved Fescue	Festuca arenaria	1	0.99	2017	NS
Flowering Plant	Wood Barley	Hordelymus europaeus	1	1.00	2017	NS
Flowering Plant	Green- winged Orchid	Anacamptis morio	6	1.06	2022	RL-ENG-post2001- VU, RL-GB- post2001-NT
Flowering Plant	Heath Milkwort	Polygala serpyllifolia	1	1.20	2018	Oxon-S, RL-ENG- post2001-NT
Flowering Plant	Cornfield Knotgrass	Polygonum rurivagum	1	1.20	2021	Oxon-S
Flowering Plant	Grape- hyacinth	Muscari neglectum	1	1.25	2021	S41, Oxon-S, NR
Flowering Plant	Ivy Broomrape	Orobanche hederae	1	1.25	2020	Oxon-S
Flowering Plant	Purple Ramping- fumitory	Fumaria purpurea	2	1.26	2022	S41, NS, RL-ENG- post2001-VU
Flowering Plant	Oak-leaved Goosefoot	Oxybasis glauca	2	1.26	2019	NS, RL-ENG- post2001-VU, RL- GB-post2001-VU
Flowering Plant	Small- flowered Buttercup	Ranunculus parviflorus	2	1.26	2022	Oxon-S
Flowering Plant	Jersey Cudweed	Gnaphalium luteoalbum	2	1.28	2019	WCA8
Flowering Plant	Blinks	Montia fontana	1	1.30	2021	Oxon-S





Group	Common name	Scientific name	No. of records	Nearest distance from the ProjectProject (km)	Year of most recent record	Conservation status
Flowering Plant	Parsley Water- dropwort	Oenanthe Iachenalii	1	1.32	2022	Oxon-R, RL-ENG- post2001-NT
Flowering Plant	Round- fruited Rush	Juncus compressus	2	1.33	2021	RL-ENG-post2001- VU, RL-GB- post2001-VU
Flowering Plant	Harebell	Campanula rotundifolia	3	1.36	2019	RL-ENG-post2001- NT
Flowering Plant	Heath Speedwell	Veronica officinalis	2	1.43	2015	RL-ENG-post2001- NT
Flowering Plant	Purple Moor-grass	Molinia caerulea	2	1.44	2018	Oxon-S
Flowering Plant	Alder Buckthorn	Frangula alnus	2	1.61	2018	Oxon-S
Flowering Plant	Water-violet	Hottonia palustris	3	1.61	2020	RL-ENG-post2001- VU, RL-GB- post2001-VU
Flowering Plant	Whorled Water-milfoil	Myriophyllum verticillatum	3	1.61	2020	Oxon-S, RL-ENG- post2001-NT, RL- GB-post2001-VU
Flowering Plant	Fen Violet	Viola persicifolia	1	1.71	2015	WCA8, S41, Oxon- R, NR, RL-ENG- post2001-CR, RL- GB-post2001-CR
Flowering Plant	Broad- leaved Cudweed	Filago pyramidata	1	1.85	2021	WCA8, S41, Oxon- R, NS, RL-ENG- post2001-EN, RL- GB-post2001-EN
Flowering Plant	Common Cudweed	Filago vulgaris	1	1.87	2018	RL-ENG-post2001- NT, RL-GB- post2001-NT
Flowering Plant	Hound's- tongue	Cynoglossum officinale	2	1.89	2017	RL-ENG-post2001- NT, RL-GB- post2001-NT
Flowering Plant	Water Avens	Geum rivale	1	1.90	2019	Oxon-S
Flowering Plant	Narrow- leaved Water- plantain	Eleocharis acicularis	1	1.91	2021	RL-ENG-post2001- NT





Group	Common name	Scientific name	No. of records	Nearest distance from the ProjectProject (km)	Year of most recent record	Conservation status
Fungus	Cochicum Smut	Urocystis colchici	1	0.02	2015	S41, Fungi-Red-CR
Fungus	Oak Polypore	Buglossoporus quercinus	23	0.65	2021	WCA8, S41
Fungus	None	Flammulaster muricatus	1	1.05	2020	Fungi-Red-VU
Fungus	Bicoloured Bracket	Gloeoporus dichrous	2	1.05	2021	Fungi-Red-NT
Fungus	Brown Birch Bolete	Leccinum scabrum	3	1.05	2021	RL-GB-post2001-DD
Fungus	Zoned Rosette	Podoscypha multizonata	2	1.10	2017	S41
Fungus	None	Sphinctrina anglica	1	1.10	2017	RL-GB-post2001-DD
Fungus	Pale Grisette	Amanita lividopallescens	1	1.34	2020	Fungi-Red-NT
Lichen	A Lichen	Porina byssophila	9	0.54	2019	RL-GB-post2001-DD
Lichen	A Lichen	Gyalecta flotovii	1	0.56	2018	RL-GB-post2001-NT
Lichen	A Lichen	Lecanora sublivescens	14	0.56	2019	S41, RL-GB- post2001-NT
Lichen	A Lichen	Biatora veteranorum	8	0.61	2019	S41, RL-GB- post2001-VU
Lichen	A Lichen	Caloplaca lucifuga	4	0.61	2018	S41, RL-GB- post2001-VU
Lichen	A Lichen	Enterographa sorediata	10	0.72	2019	S41, RL-GB- post2001-NT
Lichen	A Lichen	Buellia hyperbolica	4	0.77	2019	S41, RL-GB- post2001-VU
Lichen	A Lichen	Chaenothecopsis savonica	4	0.79	2019	RL-GB-post2001-NT
Lichen	A Lichen	Ochrolechia arborea	2	0.94	2019	RL-GB-post2001-NT
Lichen	A Lichen	Lecanora quercicola	1	1.10	2017	NS, RL-GB- post2001-NT
Lichen	A Lichen	Calicium abietinum	4	1.11	2018	RL-GB-post2001-DD





Group	Common name	Scientific name		Nearest distance from the ProjectProject (km)	most recent	Conservation status
Lichen	A Lichen	Rinodina exigua	1	1.25	2019	RL-GB-post2001-DD
Lichen	A Lichen	Micarea globulosella	1	1.34	2019	RL-GB-post2001-DD

Invertebrates

- 3.1.23 The ecology desk study identified records of 244 terrestrial invertebrate species of conservation interest or concern within the ecology desk Study Area. The records covered several groups, namely true flies, true bugs, moths and butterflies, mayflies, dragonflies and damselflies, molluscs, beetles, false scorpions; and ants, bees, wasps and sawflies.
- 3.1.24 The records included 33 priority species, one species listed on Annex 2 of the EC Habitats directive, five species protected (partially) under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) 60 notable / nationally scarce species, and 79 species listed on at least one Red List. Some species are listed under more than one of these categories.
- 3.1.25 Of these, three butterfly species have been recorded within the Project site.
- 3.1.26 The records are shown in Anx Figure 11 and Anx Figure 12 and summarised Table 3.2.2.

Table 3.2.6. Protected and invertebrate species within 1 km of the Project site.

Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Invertebrates - Ants, Bees, Sawflies & Wasps	An Ant, Bee, Sawfly or Wasp	Auplopus carbonarius	8	0.48	2021	N-B
Invertebrates - Ants, Bees, Sawflies & Wasps	Lobe-spurred Furrow Bee	Lasioglossum pauxillum	49	0.48	2021	N-A
Invertebrates - Ants, Bees, Sawflies & Wasps	An Ant, Bee, Sawfly or Wasp	Nysson trimaculatus	1	0.48	2018	N-B
Invertebrates - Ants, Bees,	An Ant, Bee, Sawfly or Wasp	Pemphredon morio	2	0.48	2021	N-B





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Sawflies & Wasps						
Invertebrates - Ants, Bees, Sawflies & Wasps	Hill Cuckoo Bee	Bombus rupestris	37	0.49	2021	N-B
Invertebrates - Ants, Bees, Sawflies & Wasps	An Ant, Bee, Sawfly or Wasp	Dolichovespula saxonica	11	0.49	2021	RL-GB-pre94- Insu
Invertebrates - Ants, Bees, Sawflies & Wasps	Four-spotted Furrow Bee	Lasioglossum quadrinotatum	1	0.49	2020	N-A
Invertebrates - Ants, Bees, Sawflies & Wasps	Hawksbeard Mining Bee	Andrena fulvago	4	0.55	2021	N-A
Invertebrates - Ants, Bees, Sawflies & Wasps	Sharp- collared Furrow Bee	Lasioglossum malachurum	30	0.55	2021	N-B
Invertebrates - Ants, Bees, Sawflies & Wasps	Ridge- cheeked Furrow Bee	Lasioglossum puncticolle	13	0.55	2021	N-B
Invertebrates - Ants, Bees, Sawflies & Wasps	Yellow- shouldered Nomad Bee	Nomada ferruginata	9	0.55	2020	RL-GB-pre94- EN
Invertebrates - Ants, Bees, Sawflies & Wasps	Red-tailed Mason Bee	Osmia bicolor	70	0.55	2021	N-B
Invertebrates - Ants, Bees, Sawflies & Wasps	Painted Nomad Bee	Nomada fucata	3	0.64	2021	N-A
Invertebrates - Ants, Bees, Sawflies & Wasps	Swollen- thighed Blood Bee	Sphecodes crassus	9	0.65	2020	N-B





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Invertebrates - Ants, Bees, Sawflies & Wasps	Small Tiphia	Tiphia minuta	6	0.65	2021	N-B
Invertebrates - Ants, Bees, Sawflies & Wasps	An Ant, Bee, Sawfly or Wasp	Dolichovespula media	8	0.66	2020	N-A
Invertebrates - Ants, Bees, Sawflies & Wasps	Dark Blood Bee	Sphecodes niger	1	0.67	2020	RL-GB-pre94-R
Invertebrates - Ants, Bees, Sawflies & Wasps	Big-headed Mining Bee	Andrena bucephala	10	0.68	2020	N-A
Invertebrates - Ants, Bees, Sawflies & Wasps	An Ant, Bee, Sawfly or Wasp	Gorytes laticinctus	1	0.68	2020	RL-GB-pre94-R
Invertebrates - Ants, Bees, Sawflies & Wasps	Long-horned Nomad Bee	Nomada hirtipes	4	0.68	2019	RL-GB-pre94-R
Invertebrates - Ants, Bees, Sawflies & Wasps	An Ant, Bee, Sawfly or Wasp	Priocnemis hyalinata	7	0.68	2021	N-B
Invertebrates - Ants, Bees, Sawflies & Wasps	Large Garden Bumblebee	Bombus ruderatus	1	0.75	2018	S41, N-B
Invertebrates - Ants, Bees, Sawflies & Wasps	Large Sallow Mining Bee	Andrena apicata	1	0.81	2018	N-B
Invertebrates - Ants, Bees, Sawflies & Wasps	Lathbury's Nomad Bee	Nomada lathburiana	3	0.81	2017	RL-GB-pre94-R
Invertebrates - Ants, Bees,	An Ant, Bee, Sawfly or Wasp	Anoplius caviventris	2	0.83	2021	N-B





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Sawflies & Wasps						
Invertebrates - Ants, Bees, Sawflies & Wasps	Ridge- saddled Carpenter Bee	Heriades truncorum	3	0.83	2021	RL-GB-pre94- Insu
Invertebrates - Ants, Bees, Sawflies & Wasps	Trimmer's Mining Bee	Andrena trimmerana	2	0.91	2021	N-B
Invertebrates - Ants, Bees, Sawflies & Wasps	Brown Tree Ant	Lasius brunneus	10	0.94	2021	N-A
Invertebrates - Ants, Bees, Sawflies & Wasps	Large Scabious Mining Bee	Andrena hattorfiana	3	1.15	2020	RL-GB-pre94-R
Invertebrates - Ants, Bees, Sawflies & Wasps	Red-tailed Blood Bee	Sphecodes rubicundus	1	1.15	2020	N-A
Invertebrates - Ants, Bees, Sawflies & Wasps	Brown- Banded Carder Bee	Bombus humilis	12	1.26	2018	S41
Invertebrates - Ants, Bees, Sawflies & Wasps	An Ant, Bee, Sawfly or Wasp	Didineis lunicornis	2	1.26	2021	N-A
Invertebrates - Ants, Bees, Sawflies & Wasps	An Ant, Bee, Sawfly or Wasp	Microdynerus exilis	1	1.26	2020	N-B
Invertebrates - Ants, Bees, Sawflies & Wasps	An Ant, Bee, Sawfly or Wasp	Crossocerus walkeri	1	1.27	2021	N-B
Invertebrates - Ants, Bees, Sawflies & Wasps	An Ant, Bee, Sawfly or Wasp	Stigmus pendulus	1	1.28	2018	RL-GB-pre94- Insu





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Invertebrates - Ants, Bees, Sawflies & Wasps	An Ant, Bee, Sawfly or Wasp	Priocnemis confusor	1	1.33	2021	N-B
Invertebrates - Ants, Bees, Sawflies & Wasps	An Ant, Bee, Sawfly or Wasp	Crossocerus distinguendus	2	1.42	2022	N-A
Invertebrates - Ants, Bees, Sawflies & Wasps	An Ant, Bee, Sawfly or Wasp	Chrysis illigeri	1	1.45	2017	N-B
Invertebrates - Ants, Bees, Sawflies & Wasps	Red-shanked Carder Bee	Bombus ruderarius	1	1.85	2017	S41
Invertebrates - Beetles	A Beetle	Nebrioporus depressus	1	0.01	2017	N-B, RL-GB- post2001-NT
Invertebrates - Beetles	A Beetle	Riolus subviolaceus	1	0.03	2016	NS
Invertebrates - Beetles	Stag Beetle	Lucanus cervus	2	0.14	2022	HDir2, WCA5, S41
Invertebrates - Beetles	Rugged Oil- beetle	Meloe rugosus	6	0.15	2020	S41
Invertebrates - Beetles	A Beetle	Kissophagus vicinus	1	0.28	2021	N-B
Invertebrates - Beetles	A Beetle	Larinus carlinae	3	0.44	2021	N-B
Invertebrates - Beetles	Cramp-Ball Fungus Weevil	Platyrhinus resinosus	12	0.44	2021	N-B
Invertebrates - Beetles	A Beetle	Cryptarcha strigata	4	0.45	2021	N-B
Invertebrates - Beetles	A Beetle	Cryptophagus micaceus	21	0.45	2021	RL-GB-pre94- Insu
Invertebrates - Beetles	A Beetle	Cypha pulicaria	8	0.45	2021	N
Invertebrates - Beetles	A Beetle	Enicmus brevicornis	35	0.45	2021	N





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Invertebrates - Beetles	A Beetle	Epuraea silacea	3	0.45	2021	RL-GB-pre94-R
Invertebrates - Beetles	A Beetle	Notolaemus unifasciatus	1	0.45	2021	N-A
Invertebrates - Beetles	A Beetle	Orthoperus nigrescens	44	0.45	2021	N-B
Invertebrates - Beetles	Pinhole Borer	Platypus cylindrus	17	0.45	2021	N-B
Invertebrates - Beetles	A Beetle	Plectophloeus nitidus	2	0.45	2019	RL-GB-pre94- VU
Invertebrates - Beetles	A Beetle	Taphrorychus bicolor	19	0.45	2021	N-A
Invertebrates - Beetles	A Beetle	Trinodes hirtus	12	0.45	2021	RL-GB- post2001-NT
Invertebrates - Beetles	A Beetle	Uleiota planatus	13	0.46	2021	N-A
Invertebrates - Beetles	A Beetle	Euplectus tholini	2	0.47	2021	RL-GB-pre94-R
Invertebrates - Beetles	A Beetle	Diplocoelus fagi	5	0.48	2021	N-B
Invertebrates - Beetles	A Beetle	Ernoporicus fagi	7	0.48	2021	N-A
Invertebrates - Beetles	A Beetle	Hylis olexai	3	0.48	2021	RL-GB-pre94-R
Invertebrates - Beetles	A Beetle	Laemophloeus monilis	9	0.48	2021	RL-GB-pre94- EN
Invertebrates - Beetles	A Beetle	Omalium rugatum	6	0.48	2021	N
Invertebrates - Beetles	A Beetle	Orthoperus aequalis	3	0.48	2021	RL-GB-pre94- Insu
Invertebrates - Beetles	A Beetle	Phloeopora corticalis	2	0.48	2021	N
Invertebrates - Beetles	A Beetle	Pseudotriphyllus suturalis	4	0.48	2021	RL-Global- post2001-NT
Invertebrates - Beetles	A Beetle	Scydmaenus rufus	2	0.48	2021	RL-GB-pre94- VU





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Invertebrates - Beetles	A Beetle	Atomaria nigriventris	1	0.49	2020	N
Invertebrates - Beetles	Horsetail Weevil	Grypus equiseti	1	0.49	2021	N-B
Invertebrates - Beetles	A Beetle	Aulonothroscus brevicollis	26	0.53	2021	RL-GB-pre94-R
Invertebrates - Beetles	A Beetle	Ernoporicus caucasicus	8	0.53	2021	RL-GB-pre94- EN
Invertebrates - Beetles	A Beetle	Hylis cariniceps	1	0.53	2021	RL-GB-pre94- EN
Invertebrates - Beetles	A Beetle	Symbiotes latus	3	0.53	2021	N-B
Invertebrates - Beetles	A Beetle	Anisandrus dispar	2	0.55	2021	N-B
Invertebrates - Beetles	A Beetle	Carpelimus fuliginosus	1	0.55	2021	N
Invertebrates - Beetles	A Beetle	Dropephylla gracilicornis	9	0.55	2021	N
Invertebrates - Beetles	A Beetle	Enicmus rugosus	8	0.55	2021	N
Invertebrates - Beetles	A Beetle	Silvanus bidentatus	6	0.55	2021	N-B
Invertebrates - Beetles	Ambrosia Beetle	Xyleborus dryographus	5	0.57	2021	N-B
Invertebrates - Beetles	A Beetle	Platystomos albinus	2	0.59	2021	N-B
Invertebrates - Beetles	A Beetle	Ampedus elongatulus	4	0.62	2021	N-A
Invertebrates - Beetles	A Beetle	Phytoecia cylindrica	4	0.62	2021	N-B
Invertebrates - Beetles	A Beetle	Sphindus dubius	11	0.62	2021	N-B
Invertebrates - Beetles	A Beetle	Stenichnus godarti	4	0.62	2021	RL-GB-pre94-R
Invertebrates - Beetles	A Beetle	Zyras haworthi	1	0.62	2021	N-A





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Invertebrates - Beetles	A Beetle	Anthonomus chevrolati	1	0.66	2020	RL-GB-pre94- Insu
Invertebrates - Beetles	A Beetle	Rhinocyllus conicus	8	0.66	2020	N-A
Invertebrates - Beetles	A Beetle	Pseudoprotapion astragali	2	0.68	2019	N-A
Invertebrates - Beetles	A Beetle	Quedius scitus	4	0.71	2021	N-B
Invertebrates - Beetles	A Beetle	Gyrophaena strictula	1	0.73	2021	N
Invertebrates - Beetles	Cardinal Click Beetle	Ampedus cardinalis	14	0.84	2021	RL-GB-pre94- VU, RL-Global- post2001-NT
Invertebrates - Beetles	A Beetle	Batrisodes venustus	3	0.86	2021	N-A
Invertebrates - Beetles	A Beetle	Anaglyptus mysticus	2	0.93	2019	N-B
Invertebrates - Beetles	A Beetle	Procraerus tibialis	7	1.02	2021	RL-GB-pre94-R
Invertebrates - Beetles	A Beetle	Aleochara discipennis	1	1.05	2021	N
Invertebrates - Beetles	A Beetle	Gyrophaena manca	3	1.05	2021	N
Invertebrates - Beetles	A Beetle	Strigocis bicornis	2	1.08	2021	N-B
Invertebrates - Beetles	A Beetle	Atheta difficilis	9	1.10	2021	N
Invertebrates - Beetles	A Beetle	Microrhagus pygmaeus	8	1.10	2021	RL-GB-pre94-R
Invertebrates - Beetles	A Beetle	Calambus bipustulatus	6	1.13	2021	N-B
Invertebrates - Beetles	A Beetle	Scydmoraphes helvolus	1	1.13	2021	N
Invertebrates - Beetles	A Beetle	Hydnobius punctatus	1	1.14	2016	N
Invertebrates - Beetles	A Beetle	Malthodes crassicornis	4	1.14	2021	RL-GB- post2001-NT





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Invertebrates - Beetles	A Beetle	Anotylus mutator	11	1.15	2021	N
Invertebrates - Beetles	A Beetle	Elater ferrugineus	2	1.15	2021	RL-GB-pre94- EN
Invertebrates - Beetles	A Beetle	Hypnogyra angularis	3	1.16	2021	N-A
Invertebrates - Beetles	A Beetle	Polydrusus flavipes	3	1.18	2021	N-B
Invertebrates - Beetles	A Beetle	Ctenicera pectinicornis	2	1.20	2016	N-A
Invertebrates - Beetles	A Beetle	Paraphotistus nigricornis	1	1.20	2015	RL-GB-pre94-R
Invertebrates - Beetles	A Beetle	Aleochara diversa	3	1.27	2021	N
Invertebrates - Beetles	A Beetle	Choleva glauca	4	1.27	2021	N
Invertebrates - Beetles	A Beetle	Nemozoma elongatum	1	1.27	2021	RL-GB- post2001- VU
Invertebrates - Beetles	A Beetle	Neuraphes praeteritus	1	1.27	2021	N
Invertebrates - Beetles	A Beetle	Scydmoraphes sparshalli	1	1.27	2021	RL-GB-pre94- Insu
Invertebrates - Beetles	A Beetle	Aleochara stichai	3	1.33	2021	N
Invertebrates - Beetles	A Beetle	Amarochara bonnairei	1	1.33	2021	RL-GB-pre94- Inde
Invertebrates - Beetles	A Beetle	Atheta pervagata	1	1.33	2021	RL-GB-pre94- Insu
Invertebrates - Beetles	A Beetle	Atheta scapularis	1	1.33	2021	N
Invertebrates - Beetles	A Beetle	Brachysomus hirtus	1	1.33	2021	RL-GB-pre94-R
Invertebrates - Beetles	A Beetle	Leiodes macropus	1	1.33	2021	RL-GB-pre94- Insu
Invertebrates - Beetles	A Beetle	Leiodes strigipennis	2	1.33	2021	RL-GB-pre94- Insu





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Invertebrates - Beetles	A Beetle	Stichoglossa semirufa	1	1.33	2021	RL-GB-pre94- Inde
Invertebrates - Beetles	A Beetle	Hypopycna rufula	1	1.34	2021	RL-GB-pre94- Insu
Invertebrates - Beetles	A Beetle	Quedius aetolicus	1	1.34	2021	N-A
Invertebrates - Beetles	A Beetle	Quedius invreae	1	1.34	2021	N-B
Invertebrates - Beetles	A Beetle	Ampedus quercicola	1	1.37	2020	N-B
Invertebrates - Beetles	A Beetle	Grammoptera abdominalis	2	1.38	2021	N-A
Invertebrates - Beetles	A Beetle	Ischnodes sanguinicollis	1	1.41	2016	N-A
Invertebrates - Beetles	A Beetle	Atomaria clavigera	1	1.43	2019	RL-GB-pre94- Insu
Invertebrates - Beetles	A Beetle	Atheta laevana	1	1.48	2020	RL-GB-pre94- Insu
Invertebrates - Beetles	A Beetle	Gyrophaena joyi	1	1.50	2021	N
Invertebrates - Beetles	A Beetle	Meligethes gagathinus	1	1.51	2020	N
Invertebrates - Beetles	A Beetle	Cossonus parallelepipedus	2	1.53	2022	N-B
Invertebrates - Beetles	A Beetle	Stenus butrintensis	1	1.54	2020	N
Invertebrates - Beetles	A Beetle	Stenus niveus	1	1.54	2020	N-B
Invertebrates - Beetles	A Beetle	Rhizophagus nitidulus	1	1.55	2019	N-B
Invertebrates - Beetles	A Beetle	Helophorus dorsalis	1	1.59	2020	NS
Invertebrates - Beetles	A Beetle	Ampedus nigrinus	1	1.62	2019	N-B
Invertebrates - Beetles	A Beetle	Coeliodes transversealbofas ciatus	1	1.62	2020	N





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Invertebrates - Beetles	A Beetle	Globicornis nigripes	3	1.62	2021	RL-GB- post2001-VU
Invertebrates - Beetles	A Beetle	Cryptarcha undata	2	1.63	2021	N-B
Invertebrates - Beetles	A Beetle	Epuraea guttata	2	1.63	2021	N-B
Invertebrates - Beetles	A Beetle	Cis festivus	1	1.64	2020	N-B
Invertebrates - Beetles	A Beetle	Axinotarsus pulicarius	1	1.68	2019	RL-GB- post2001-VU
Invertebrates - Beetles	A Beetle	Cypha discoidea	1	1.68	2019	N-B
Invertebrates - Beetles	A Beetle	Dorytomus filirostris	1	1.69	2018	N-B
Invertebrates - Beetles	A Beetle	Magdalis carbonaria	1	1.70	2019	N-B
Invertebrates - Beetles	A Beetle	Polydrusus formosus	3	1.70	2019	N-A
Invertebrates - Beetles	A Beetle	Meligethes haemorrhoidalis	1	1.73	2021	N
Invertebrates - Beetles	A Beetle	Paederus fuscipes	1	1.78	2021	N-B
Invertebrates - Beetles	A Beetle	Clambus pallidulus	1	1.84	2021	RL-GB- post2001-DD
Invertebrates - Beetles	A Beetle	Oligota apicata	1	1.84	2021	N
Invertebrates - Beetles	A Beetle	Sepedophilus testaceus	1	1.84	2021	N
Invertebrates - Beetles	A Beetle	Poecilium alni	3	1.85	2021	N-B
Invertebrates - Beetles	A Beetle	Magdalis cerasi	2	1.87	2021	N-B
Invertebrates - Beetles	A Beetle	Curculio villosus	1	1.88	2019	N-B
Invertebrates - Beetles	A Beetle	Bibloporus minutus	1	1.91	2021	N-B





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Invertebrates - Butterflies	Small Heath	Coenonympha pamphilus pamphilus	16	0 (1 record)	2022	S41, RL-GB- post2001-NT
Invertebrates - Butterflies	Common Club-tail	Gomphus vulgatissimus	12	0 (2 records)	2020	RL-GB- post2001-NT
Invertebrates - Butterflies	Black Hairstreak	Satyrium pruni	19	0 (6 records)	2019	WCA5, RL-GB- post2001-EN
Invertebrates - Butterflies	Brown Hairstreak	Thecla betulae	59	0.02	2020	S41, RL-GB- post2001-VU
Invertebrates - Butterflies	Small Heath	Coenonympha pamphilus	21	0.07	2019	S41, RL-GB- post2001-NT
Invertebrates - Butterflies	White Admiral	Limenitis camilla	8	0.27	2019	S41, RL-GB- post2001-VU
Invertebrates - Butterflies	White-letter Hairstreak	Satyrium w-album	9	0.33	2019	WCA5, S41, RL-GB- post2001-EN
Invertebrates - Butterflies	Purple Emperor	Apatura iris	15	0.44	2021	WCA5, RL-GB- post2001-NT
Invertebrates - Butterflies	Grizzled Skipper	Pyrgus malvae	1	0.68	2018	S41, RL-GB- post2001-VU
Invertebrates - Dragonflies & Damselflies	Common Darter	Sympetrum striolatum	191	0.04	2022	RL-GB- post2001-DD
Invertebrates - Dragonflies & Damselflies	Scarce Chaser	Libellula fulva	1	0.46	2018	RL-GB- post2001-NT
Invertebrates - Dragonflies & Damselflies	Variable Damselfly	Coenagrion pulchellum	1	1.97	2020	RL-GB- post2001-NT
Invertebrates - False Scorpions	Large Tree- chernes	Dendrochernes cyrneus	2	1.05	2019	RL-GB-pre94-R
Invertebrates - Mayflies	A Mayfly	Baetis fuscatus	1	0.03	2021	RL-GB- post2001-DD
Invertebrates - Mayflies	A Mayfly	Ephemera lineata	2	0.03	2019	RL-GB- post2001-VU
Invertebrates - Molluscs	Roman Snail	Helix (Helix) pomatia	27	0.44	2020	HDir5, WCA5





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Invertebrates - Molluscs	Large Black Slug	Arion (Arion) ater	2	0.47	2020	RL-GB- post2001-DD
Invertebrates - Molluscs	Marsh Pond Snail	Stagnicola palustris/fuscus/co rvus	5	0.88	2016	RL-GB- post2001-DD
Invertebrates - Moths	Large Nutmeg	Apamea anceps	12	0.07	2018	S41
Invertebrates - Moths	Mottled Rustic	Caradrina morpheus	3	0.07	2017	S41
Invertebrates - Moths	Cinnabar	Tyria jacobaeae	34	0.37	2021	S41
Invertebrates - Moths	Blood-vein	Timandra comae	37	0.62	2021	S41
Invertebrates - Moths	Knot Grass	Acronicta rumicis	10	0.68	2021	S41
Invertebrates - Moths	August Thorn	Ennomos quercinaria	8	0.82	2021	S41
Invertebrates - Moths	Green- brindled Crescent	Allophyes oxyacanthae	16	0.83	2020	S41
Invertebrates - Moths	Minor Shoulder-knot	Brachylomia viminalis	21	0.83	2021	S41
Invertebrates - Moths	Bulrush Veneer	Calamotropha paludella	5	0.83	2021	N-B
Invertebrates - Moths	Buff Ermine	Spilosoma lutea	31	0.83	2021	S41
Invertebrates - Moths	Grey Dagger	Acronicta psi	3	0.92	2020	S41
Invertebrates - Moths	Centre-barred Sallow	Atethmia centrago	17	0.92	2021	S41
Invertebrates - Moths	Dark Crimson Underwing	Catocala sponsa	1	0.92	2021	S41, RL-GB- pre94-R
Invertebrates - Moths	Lichen Sober	Dichomeris alacella	5	0.92	2021	N
Invertebrates - Moths	Autumnal Rustic	Eugnorisma glareosa	13	0.92	2021	S41
Invertebrates - Moths	Brindled Beauty	Lycia hirtaria	29	0.92	2019	S41





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Invertebrates - Moths	Large Wainscot	Rhizedra lutosa	17	0.92	2019	S41
Invertebrates - Moths	Brown-spot Pinion	Anchoscelis litura	9	1.05	2020	S41
Invertebrates - Moths	Deep-brown Dart	Aporophyla lutulenta	15	1.23	2021	S41
Invertebrates - Moths	Latticed Heath	Chiasmia clathrata	1	1.23	2020	S41
Invertebrates - Moths	Beaded Chestnut	Agrochola lychnidis	20	1.32	2019	S41
Invertebrates - Moths	Dark Spinach	Pelurga comitata	1	1.32	2018	S41
Invertebrates - Moths	Least Minor	Photedes captiuncula	1	1.32	2017	RL-GB-pre94-R
Invertebrates - Moths	Balsam Carpet	Xanthorhoe biriviata	1	1.32	2018	RL-GB-pre94-R
Invertebrates - Moths	Dark-barred Twin-spot Carpet	Xanthorhoe ferrugata	3	1.32	2019	S41
Invertebrates - True Bugs	A True Fly	Pocota personata	1	1.07	2020	NS
Invertebrates - True Bugs	A True Fly	Ctenophora pectinicornis	3	1.13	2021	N
Invertebrates - True Bugs	A True Bug	Mycetophila deflexa	1	1.27	2021	RL-GB-post94- DD
Invertebrates - True Flies	False Woodlouse- fly	Eggisops pecchiolii	1	0.44	2020	N
Invertebrates - True Flies	A True Fly	Sarcophaga villeneuvei	1	0.44	2020	RL-GB-pre94-R
Invertebrates - True Flies	A True Fly	Mycomya occultans	1	0.48	2020	NS
Invertebrates - True Flies	A True Fly	Platycheirus sticticus	1	0.53	2017	NS
Invertebrates - True Flies	A True Fly	Cladoneura hirtipennis	3	0.62	2021	NS
Invertebrates - True Flies	A True Fly	Dolichopus virgultorum	5	0.62	2021	NS





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Invertebrates - True Flies	A True Fly	Eustalomyia hilaris	3	0.62	2021	RL-GB-pre94-R
Invertebrates - True Flies	A True Fly	Redtenbacheria insignis	1	0.62	2021	RL-GB-pre94- VU
Invertebrates - True Flies	A True Fly	Tachypeza fuscipennis	2	0.62	2021	NS
Invertebrates - True Flies	A True Fly	Blaesoxipha plumicornis	12	0.64	2020	N
Invertebrates - True Flies	A True Fly	Myopa pellucida	6	0.64	2021	RL-GB-pre94-R
Invertebrates - True Flies	A True Fly	Myolepta dubia	1	0.66	2021	NS
Invertebrates - True Flies	A True Fly	Phaonia siebecki	1	0.66	2017	N
Invertebrates - True Flies	A True Fly	Sarcophaga subulata	1	0.68	2021	N
Invertebrates - True Flies	Variegated Fruit-fly	Phortica variegata	1	0.86	2019	S41, RL-GB- pre94-EN
Invertebrates - True Flies	A True Fly	Neoascia interrupta	1	0.99	2021	NS
Invertebrates - True Flies	A True Fly	Platypalpus mikii	1	1.05	2017	NS
Invertebrates - True Flies	A True Fly	Pseudolyciella pallidiventris	1	1.05	2019	RL-GB- post2001-DD
Invertebrates - True Flies	A True Fly	Trichonta fragilis	1	1.05	2017	NS
Invertebrates - True Flies	A True Fly	Meligramma euchromum	1	1.07	2021	NS
Invertebrates - True Flies	A True Fly	Brachyopa bicolor	1	1.13	2021	NS
Invertebrates - True Flies	Wood Snipefly	Rhagio annulatus	1	1.26	2021	RL-GB- post2001-NT
Invertebrates - True Flies	A True Fly	Brachycampta neglecta	2	1.27	2021	NS
Invertebrates - True Flies	A True Fly	Dicranomyia chorea	1	1.27	2021	RL-GB-pre94-R





Group	Common name	Scientific name	No of record s	Nearest distance from the Project (km)	Year of most recent record	Conservatio n status
Invertebrates - True Flies	A True Fly	Grzegorzekia collaris	1	1.27	2021	NS
Invertebrates - True Flies	A True Fly	Helina abdominalis	9	1.27	2021	N
Invertebrates - True Flies	A True Fly	Hercostomus nigrilamellatus	3	1.27	2021	NS
Invertebrates - True Flies	A True Fly	Keroplatus testaceus	3	1.27	2021	NS
Invertebrates - True Flies	A True Fly	Macronychia polyodon	1	1.27	2021	RL-GB-pre94-R
Invertebrates - True Flies	A True Fly	Mycomya insignis	2	1.27	2021	NS
Invertebrates - True Flies	A True Fly	Rymosia spinipes	1	1.27	2021	NS
Invertebrates - True Flies	A True Fly	Fannia gotlandica	1	1.28	2017	N
Invertebrates - True Flies	A True Fly	Eustalomyia vittipes	1	1.32	2021	N
Invertebrates - True Flies	A True Fly	Acnemia amoena	1	1.33	2021	RL-GB-pre94- NT
Invertebrates - True Flies	A True Fly	Lispocephala falculata	1	1.33	2021	N, RL-GB- pre94-R
Invertebrates - True Flies	A True Fly	Rhamphomyia caliginosa	2	1.33	2021	NS
Invertebrates - True Flies	A True Fly	Rhamphomyia Iamellata	1	1.33	2021	NS
Invertebrates - True Flies	Drab Wood- soldierfly	Solva marginata	1	1.33	2021	RL-GB-pre94- VU
Invertebrates - True Flies	A True Fly	Homoneura interstincta	1	1.34	2021	RL-GB-pre94-R
Invertebrates - True Flies	A True Fly	Goniglossum wiedemanni	2	1.56	2019	N

Fish

3.1.27 The ecology desk study identified records of five fish species within the Study Area.





- 3.1.28 None of the species identified within the desk study were from within the Project site.
- 3.1.29 The locations of the fish records are shown in Anx Figure 13 and Anx Figure 14 with the records summarised in Table 3.2.3.

Table 3.2.7. Protected and notable fish records from within 2 km of the Project site.

Group	Common name	Scientific name	No. of records	Nearest distance from the Project (km)	Year of most recent record	Conservation status
Fish - Bony	Brown Trout	Salmo trutta subsp. fario	3	<0.01 (1 record)	2015	S41
Fish - Bony	Brown/Sea Trout	Salmo trutta	7	<0.01 (2 records)	2019	S41
Fish - Bony	Bullhead	Cottus gobio	17	<0.01 (1 record)	2021	HDir2np
Fish - Bony	Barbel	Barbus barbus	5	0.17	2018	HDir5, HReg4
Fish - Jawless	Brook Lamprey	Lampetra planeri	1	0.01	2021	HDir2np

Amphibians and reptiles

- 3.1.30 The ecology desk study identified records of five amphibian species of conservation interest or concern within Study Area. This included Great crested newt which is fully protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended) and common toad which is a priority species. There were no amphibian records within the Project site.
- 3.1.31 The ecology desk study identified records of three reptile species within the Study Area. All three species are priority species and protected under the Wildlife and Countryside Act 1981 (as amended). One species, slow-worm, was recorded from within the Project site.
- 3.1.32 The records are shown in Anx Figure 15 and Anx Figure 16 and summarised in Table 3.2.4.

Table 3.2.8. Records of Amphibian and reptile species within 2 km of the Project site.

Group	Common name	Scientific name	No. of records	Nearest distance from the Project (km)		Conservation status
Amphibians	Common Frog	Rana temporaria	96	0.02	2022	HDir5, WCA5





Amphibians	Great Crested Newt	Triturus cristatus	567	0.05	2022	HDir2, HDir4, HReg2, WCA5, S41
Amphibians	Smooth Newt	Lissotriton vulgaris	338	0.05	2022	WCA5
Amphibians	Common Toad	Bufo bufo	117	0.43	2021	WCA5, S41
Amphibians	Palmate Newt	Lissotriton helveticus	3	1.73	2021	WCA5
Reptiles	Slow-worm	Anguis fragilis	82	0 (6 records)	2023	S41, WCA5
Reptiles	Common Lizard	Zootoca vivipara	16	0.11	2021	S41, WCA5
Reptiles	Grass Snake	Natrix helvetica	40	0.17	2021	S41, WCA5
Reptiles	Adder	Vipera berus	1	0.34	2015	S41, WCA5

Birds

- 3.1.33 The ecology desk study identified 116 bird species of conservation interest or concern within the Study Area including nine species recorded within the Project site. The records included 23 species listed on Annex 1 of the EC Birds Directive, 37 species protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), 25 priority species, 37 BoCC Red List species, 60 BoCC Amber List species and four other Red List species. Of these, nine species have been recorded within the Project site.
- 3.1.34 A detailed analysis is provided in Appendix 9.9 Breeding Birds Survey Report of the ES
- 3.1.35 The records are shown on Anx Figure 17 and Anx Figure 18 and summarised in Table 3.2.5.

Table 3.2.9. Bird species recorded within 2 km of the Project site.

Common name	Scientific name	No. of records	Nearest distance from the Project (km)	Year of most recent record	Conservation status
Barn owl	Tyto alba	65	0 (1 record)	2022	WCA1
Marsh Tit	Poecile palustris	49	0 (1 record)	2022	S41, BoCC Red
Swift	Apus apus	112	0 (1 record)	2022	BoCC Red
Wheatear	Oenanthe oenanthe	5	0 (1 record)	2021	BoCC Amber
Yellowhammer	Emberiza citrinella	22	0 (1 record)	2022	S41, BoCC Red
Kestrel	Falco tinnunculus	91	0 (17 records)	2022	BoCC Amber





Whitethroat	Curruca communis	28	0 (2 records)	2022	BoCC Amber
Skylark	Alauda arvensis	80	0 (3 records)	2022	S41, BoCC Red
Red Kite	Milvus milvus	111	0 (7 records)	2022	BDir1, WCA1, RL- Global-post2001-NT
Woodpigeon	Columba palumbus	149	0.02	2022	BoCC Amber
Lapwing	Vanellus vanellus	35	0.05	2022	S41, BoCC Red
Mistle Thrush	Turdus viscivorus	31	0.09	2022	BoCC Red
Song Thrush	Turdus philomelos	56	0.09	2022	S41, BoCC Amber
Wren	Troglodytes troglodytes	99	0.09	2022	BoCC Amber
Sparrowhawk	Accipiter nisus	29	0.11	2022	BoCC Amber
Kingfisher	Alcedo atthis	74	0.13	2022	BDir1, WCA1
Mallard	Anas platyrhynchos	234	0.13	2022	Amber
Moorhen	Gallinula chloropus	114	0.13	2022	BoCC Amber
Tawny Owl	Strix aluco	34	0.13	2022	BoCC Amber
Linnet	Linaria cannabina	29	0.14	2022	S41, BoCC Red
Brambling	Fringilla montifringilla	5	0.17	2022	WCA1
Bullfinch	Pyrrhula pyrrhula	33	0.17	2022	S41, BoCC Amber
Dunnock	Prunella modularis	71	0.17	2022	S41, BoCC Amber
Greenfinch	Chloris chloris	26	0.17	2022	BoCC Red
House Sparrow	Passer domesticus	77	0.17	2022	S41, BoCC Red
Quail	Coturnix coturnix	1	0.17	2020	WCA1, BoCC Amber
Rook	Corvus frugilegus	26	0.17	2022	BoCC Amber
Starling	Sturnus vulgaris	72	0.17	2022	S41, BoCC Red
Willow Warbler	Phylloscopus trochilus	37	0.17	2022	BoCC Amber
Green Sandpiper	Tringa ochropus	41	0.19	2022	WCA1, BoCC Amber
Grey Wagtail	Motacilla cinerea	29	0.20	2022	BoCC Amber
Meadow Pipit	Anthus pratensis	48	0.20	2022	BoCC Amber
Yellow Wagtail	Motacilla flava	20	0.20	2022	S41, BoCC Red
House Martin	Delichon urbicum	21	0.22	2022	BoCC Red
Golden Plover	Pluvialis apricaria	3	0.27	2022	BDir1
Reed Bunting	Emberiza schoeniclus	89	0.27	2022	S41, BoCC Amber





Sedge Warbler	Acrocephalus schoenobaenus	23	0.29	2022	BoCC Amber
Cuckoo	Cuculus canorus	49	0.34	2022	S41, BoCC Red
Hobby	Falco subbuteo	29	0.34	2022	WCA1
Stock Dove	Columba oenas	41	0.35	2022	BoCC Amber
Woodcock	Scolopax rusticola	5	0.35	2021	BoCC Red
Cetti's Warbler	Cettia cetti	73	0.38	2022	WCA1
Snipe	Gallinago gallinago	41	0.38	2022	BoCC Amber
Bittern	Botaurus stellaris	6	0.39	2022	BDir1, WCA1, S41, BoCC Amber
Crane	Grus grus	2	0.39	2021	BoCC Amber
Greylag Goose	Anser anser	175	0.39	2022	BoCC Amber
Caspian Gull	Larus cachinnans	11	0.47	2022	BoCC Amber
Great Black- backed Gull	Larus marinus	80	0.47	2022	BoCC Amber
Yellow-legged Gull	Larus michahellis	87	0.47	2022	BoCC Amber
Black-headed Gull	Chroicocephalus ridibundus	187	0.48	2022	BoCC Amber
Fieldfare	Turdus pilaris	20	0.48	2022	WCA1, BoCC Red
Redwing	Turdus iliacus	24	0.48	2022	WCA1, BoCC Amber
Oystercatcher	Haematopus ostralegus	67	0.63	2022	BoCC Amber
Common Redpoll	Acanthis flammea	4	0.65	2020	BoCC Red
Little Ringed Plover	Charadrius dubius	4	0.69	2022	WCA1,
Barnacle goose	Branta leucopsis	32	0.70	2022	BDir1, BoCC Amber
Black tern	Childonias niger	8	0.70	2021	BDir1, WCA1
Black-necked Grebe	Podiceps nigricollis	4	0.70	2022	WCA1, BoCC Amber
Black-tailed Godwit	Limosa limoas	16	0.70	2022	WCA1, S41, BoCC Red, RL-Global- post2001-NT
Cattle Egret	Bubulcus ibis	17	0.70	2022	BoCC Amber
Common Gull	Larus canus	79	0.70	2022	BoCC Amber
Common Sandpiper	Actitis hypoleucos	53	0.70	2022	BoCC Amber





Common Tern	Sterna hirundo	92	0.70	2022	BoCC Amber
Curlew	Numenius arquata	44	0.70	2022	S41, BoCC Red, RL- Global-post2001-NT
Dunlin	Calidris alpina	27	0.70	2022	BoCC Red
Garganey	Spatula querquedula	5	0.70	2019	WCA1, BoCC Amber
Glossy Ibis	Plegadis falcinellus	4	0.70	2022	BDir1
Goldeneye	Bucephala clangula	70	0.70	2022	WCA1, BoCC Red
Grasshopper Warbler	Locustella naevia	4	0.70	2021	S41, BoCC Red
Great White Egret	Ardea alba	44	0.70	2022	BoCC Amber
Greenshank	Tringa nebularia	3	0.70	2020	WCA1, BoCC Amber
Herring Gull	Larus argentatus	83	0.70	2022	S41, BoCC Red
Lesser Redpoll	Acanthis cabaret	15	0.70	2022	S41
Little Egret	Egretta garzetta	111	0.70	2022	BDir1
Little Gull	Hydrocoloeus minutus	5	0.70	2021	BDir1, WCA1,
Long-tailed Duck	Clangula hyemalis	1	0.70	2021	WCA1, BoCC Red, RL-Global-post2001- VU
Marsh Harrier	Circus aeruginosus	6	0.70	2021	BDir1, WCA1, BoCC Amber
Peregrine	Falco peregrinus	9	0.70	2022	BDir1, WCA1,
Pintail	Anas acuta	6	0.70	2022	WCA1, BoCC Amber
Pochard	Aythya ferina	49	0.70	2022	BoCC Red
Redshank	Tringa totanus	13	0.70	2020	BoCC Amber
Ringed Plover	Charadrius hiaticula	11	0.70	2020	BoCC Red
Ruff	Calidris pugnax	17	0.70	2022	BDir1, WCA1, BoCC Red
Sandwich Tern	Thalasseus sandvicensis	1	0.70	2020	BDir1, BoCC Amber
Shelduck	Tadorna tadorna	47	0.70	2022	BoCC Amber
Shoveler	Spatula clypeata	51	0.70	2022	BoCC Amber
Spotted Redshank	Tringa erythropus	1	0.70	2020	BoCC Amber
Teal	Anas crecca	39	0.70	2022	BoCC Amber
				_	





White-fronted Goose	Anser albifrons	10	0.70	2021	BoCC Red	
Wigeon	Mareca penelope	42	0.70	2022	BoCC Amber	
Wood Sandpiper	Tringa glareola	3	0.70	2022	BDir1, WCA1, BoCC Amber	
Arctic tern	Sterna paradisaea	10	0.74	2020	BDir1, BoCC Amber	
Black-throated Diver	Gavia arctica	1	0.74	2015	BDir1, WCA1, BoCC Amber	
Common Scoter	Melanitta nigra	5	0.74	2020	WCA1, S41, BoCC Red	
Gadwall	Mareca strepera	77	0.74	2022	BoCC Amber	
Great Northern Diver	Gavia immer	6	0.74	2016	BDir1, WCA1, BoCC Amber	
Lesser Black- backed Gull	Larus fuscus	65	0.74	2022	BoCC Amber	
Little Tern	Sternula albifrons	1	0.74	2018	BDir1, WCA1, BoCC Amber	
Mediterranean Gull	lchthyaetus melanocephalus	37	0.74	2022	BDir1, WCA1, BoCC Amber	
Osprey	Pandion haliaetus	1	0.74	2015	BoCC Amber	
Red-necked Grebe	Podiceps grisegena	15	0.74	2016	BoCC Red	
Ruddy Shelduck	Tadorna ferruginea	2	0.74	2017	BDir1	
Sanderling	Calidris alba	5	0.74	2017	BoCC Amber	
Scaup	Aythya marila	5	0.74	2019	WCA1, S41, BoCC Red	
Shag	Gulosus aristotelis	2	0.74	2017	BoCC Red	
Slavonian Grebe	Podiceps auritus	2	0.74	2019	BDir1, WCA1, BoCC Red	
Firecrest	Regulus ignicapilla	1	0.82	2016	WCA1	
Purple heron	Ardea purpurea	1	0.88	2021	BDir1, WCA1	
Grey Partridge	Perdix perdix	3	0.91	2020	S41, BoCC Red	
Corn Bunting	Emberiza calandra	1	1.00	2020	S41, BoCC Red	
Smew	Mergellus albellus	3	1.07	2019	BDir1, WCA1, BoCC Red	
Crossbill	Loxia curvirostra	2	1.32	2020	WCA1	
Goshawk	Accipiter gentilis	1	1.32	2019	WCA1	
Spotted Flycatcher	Muscicapa striata	4	1.32	2021	S41, BoCCRed	





Tree Sparrow	Passer montanus	1	1.37	2017	S41, BoCC Red			
	Bats							
3.1.36	The ecology desk study identified at least 17 bat species within the Study Area All of these species are protected under the Wildlife and Countryside Acts 198 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended). Five species are also priority species under the NERC Ac 2006.							
3.1.37	Of these species se	even species	were recorde	d within th	e Project site.			

3.1.38 The records are shown in Anx Figure 19 and summarised in Table 3.2.6.

Table 3.2.10. Records of bats within 10 km of the Project site.

				•	
Common Name	Scientific Name	No. of records	Nearest distance from the Project (km)	Year of most recent record	Conservation Status
Daubenton's Bat	Myotis daubentonii	301	0 (1 record)	2023	HDir4, HReg2, WCA5
Natterer's Bat	Myotis nattereri	193	0 (1 record)	2023	HDir4, HReg2, WCA5
Western Barbastelle	Barbastella barbastellus	257	0 (1 record)	2023	HDir2, HDir4, HReg2, WCA5, S41, VU
Brown Long-eared Bat	Plecotus auritus	805	0 (2 records)	2022	HDir4, HReg2, WCA5, S41,
Common Pipistrelle	Pipistrellus pipistrellus	1796	0 (2 records)	2023	HDir4, HReg2, WCA5
Noctule Bat	Nyctalus noctula	870	0 (2 records)	2023	HDir4, HReg2, WCA5, S41
Soprano Pipistrelle	Pipistrellus pygmaeus	1570	0 (2 records)	2023	HDir4, HReg2, WCA5, S41
Long-eared Bat species	Plecotus	36	0.02	2018	HDir4, HReg2, WCA5, RL-GB- post2001-EN
Myotis Bat species	Myotis	751	0.02	2022	HDir2, HDir4, HReg2, WCA5, RL- GB-post2001-CR/DD
Nathusius's Pipistrelle	Pipistrellus nathusii	143	0.02	2023	HDir4, HReg2, WCA5, RL-GB- post2001-NT





Common Name	Scientific Name	No. of records	Nearest distance from the Project (km)	Year of most recent record	Conservation Status
Nyctalus Bat species	Nyctalus	132	0.02	2021	HDir4, HReg2, WCA5, RL-GB- post2001-NT
Pipistrelle Bat species	Pipistrellus	546	0.02	2022	HDir4, HReg2, WCA5, RL-GB- post2001-NT
Serotine	Eptesicus serotinus	227	0.02	2022	HDir4, HReg2, WCA5, RL-GB- post2001-VU
Leisler's Bat	Nyctalus leisleri	241	0.13	2022	HDir4, HReg2, WCA5, RL-GB- post2001-NT
Greater Horseshoe Bat	Rhinolophus ferrumequinum	1	0.19	2014	HDir2, HDir4, HReg2, WCA5, S41
Lesser Horseshoe Bat	Rhinolophus hipposideros	20	0.19	2021	HDir2, HDir4, HReg2, WCA5, S41
Bat	Chiroptera.	241	0.35	2023	HDir2, HDir4, HReg2, WCA5, S41, RL-Global-post2001- CR/ EN/VU/NT/DD
Whiskered Bat	Myotis mystacinus	21	0.43	2022	HDir4, HReg2, WCA5, RL-GB- post2001-DD
Whiskered/Brandt's Bat	Myotis mystacinus/brandtii	69	1.14	2017	HReg2, WCA5
Alcathoe Bat	Myotis alcathoe	4	2.23	2017	HDir4, HReg2, WCA5, RL-Global- post2001-DD
Brandt's bat	Myotis brandtii	2	8.78	2021	HDir4, HReg2, WCA5, RL-GB- post2001-DD

Otter and other mammals

- 3.1.39 The desk study identified one record of otter and records of six other mammal species of conservation interest or concern within the Study Area.
- 3.1.40 Six species have been recorded within the Project site: otter *Lutra lutra*, badger *Meles meles*, brown hare *Lepus europaeus*, European water vole *Arvicola amphibius*, hazel dormouse *Muscardinus avellanarius*, and West European hedgehog *Erinaceus europaeus*.





3.1.41 The records are shown on Anx Figure 19 to Anx Figure 23 and summarised in Table 3.2.7.

Table 3.2.11. Records of otter within 5k m of the Project site and other terrestrial mammals (excluding bats) within 2 km of the Project site.

Common name	Scientific name	No. of records	Nearest distance from the Project (km)	Year of most recent record	Conservation status
Brown Hare	Lepus europaeus	102	0 (27 records)	2021	S41
Eurasian Badger	Meles meles	226	0 (17 records)	2023	PBA
Eurasian Otter	Lutra lutra	119	0 (7 records)	2023	HDir2, HDir4, HReg2, WCA5, S41
European Water Vole	Arvicola amphibius	33	0 (8 records)	2022	WCA5, S41, RL-GB-post2001-EN
Hazel Dormouse	Muscardinus avellanarius	5	0 (1 record)	2014	HDir4, HReg2, WCA5, S41
West European Hedgehog	Erinaceus europaeus	355	0 (3 records)	2022	S41, RL-GB- post2001-VU
Polecat	Mustela putorius	1	1.45	2014	HDir5, HReg4, S41

Invasive non-native species.

- 3.1.42 The desk study identified records of 22 non-native invasive species within the Study Area, comprising one mammal, one bird six invertebrates (all aquatic crustaceans or molluscs) and 15 flowering plants. There were no records from within the Project site.
- 3.1.43 The records are shown on Anx Figure 24 and Anx Figure 25 and summarised in Table 3.2.8.

Table 3.2.12. Invasive non-native species within 2 km of the Project site.

Group	Commo n Name	Scientific Name	No. of recor ds	Nearest distance from the Project (km)	Year of most recent record	Invasive status
Birds	Ruddy Duck	Oxyjura jamaicensis	2	0.70	2020	INNS-Other- 2015, WCA-9, SoSC





Group	Commo n Name	Scientific Name	No. of recor ds	Nearest distance from the Project (km)	Year of most recent record	Invasive status
Flowering Plants	Himalayan Balsam	Impatiens glandulifera	12	0.01	2021	INNS-Priority- 2015, WCA-9, SoSC
Flowering Plants	Canadian Waterweed	Elodea canadensis	2	0.03	2020	INNS-Priority- 2015, WCA-9
Flowering Plants	Tree-of- heaven	Ailanthus altissima	1	0.05	2018	INNS-Other- 2015, SoSC
Flowering Plants	Butterfly Bush	Buddleja davidii	17	0.05	2022	INNS-Other-2015
Flowering Plants	Japanese Knotweed	Reynoutria japonica	4	0.10	2021	INNS-Priority- 2015, WCA-9
Flowering Plants	Russian- vine	Fallopia baldschuanica	3	0.13	2020	INNS-Other-2015
Flowering Plants	Italian Alder	Alnus cordata	4	0.21	2020	INNS-Other-2015
Flowering Plants	Rhododen dron	Rhododendron ponticum	5	0.36	2017	INNS-Other- 2015, WCA-9
Flowering Plants	Orange Balsam	Impatiens capensis	8	0.38	2021	INNS-Other-2015
Flowering Plants	Winter Heliotrope	Petasites fragrans	4	0.50	2020	INNS-Other-2015
Flowering Plants	Nuttall's Waterweed	Elodea nutallii	5	0.88	2020	INNS-Priority- 2015, SoSC
Flowering Plants	Curly Waterweed	Lagarosiphon major	3	0.88	2016	INNS-Priority- 2015, SoSC
Flowering Plants	Three- cornered Garlic	Allium triquetrum	1	1.59	2019	INNS-Other- 2015, WCA-9
Flowering Plants	Giant Hogweed	Heracleum mantegazzianum	1	1.85	2021	INNS-Other- 2015, WCA-9, SoSC
Invertebrates - Crustaceans	None	Crangonyx pseudogracilis/floridanu s	20	<0.01 (1 record)	2021	INNS-Other-2015
Invertebrates - Crustaceans	Signal crayfish	Pacifastacus Ieniusculus	14	0.01	2021	INNS-Priority- 2015, WCA-9, SoSC
Invertebrates - Crustaceans	None	Chelicorophium curvispinum	5	0.03	2019	INNS-Rapid-2015





Group	Commo n Name	Scientific Name	No. of recor ds	Nearest distance from the Project (km)	Year of most recent record	Invasive status
Invertebrates - Crustaceans	Demon Shrimp	Dikerogammarus haemobaphes	7	0.03	2021	INNS-Rapid-2015
Invertebrates - Molluscs	Zebra mussel	Dreissena polymorpha	2	0.03	2020	INNS-Priority- 2015
Invertebrates - Molluscs	Quagga Mussel	Dreissena rostriformis bugensis	1	0.03	2019	INNS-Rapid- 2015, INNS- Other-2015
Mammals	American Mink	Neovison vison	2	0.10	2021	INNS-Priority- 2015, WCA-9





4 Summary

- 4.1.1 The desk study identified the following nature conservation sites within the Study Area:
 - Two internationally designated nature conservation sites;
 - 21 national statutory designated nature conservation sites;
 - 57 non-statutory designated nature conservation sites including four sites which partially overlap with the Site;
 - One NIA, The Cotswold Valleys NIA, in the West Oxfordshire Local Plan within 2 km of the Project site;
 - Oxfordshire Green Belt which overlaps with a significant extent of the Project Site;
 - Four priority habitats within the Site (coastal and floodplain grazing marsh, possible priority grassland, lowland mixed deciduous woodland and rivers) and a further 12 priority habitats outside of but within 2 km of the Project site;
 - 91 Ancient Woodland Inventory sites of which one (Bladon Heath) falls partly within the Project site;
 - Two trees listed on the ancient tree inventory within the Project site (both Veteran trees) and a further three veteran trees outside of but within 50 m of the Project site.
- 4.1.2 The desk study identified the following records of protected or otherwise notable species within the Study Area:
 - 88 flowering plants, one fern, eight fungi and 13 lichens of which seven flowering plants have been recorded within the Project site;
 - 244 terrestrial invertebrates of which three have been recorded within the Project site;
 - Five fish species, none within the Project site;
 - Five amphibian species (including great crested newts), none within the Project site;
 - Four reptile species of which only slow-worm was recorded within the Project site.
 - 116 bird species of which nine were recorded within the Project site (barn owl, kestrel, marsh tit red kite, skylark, swift, wheatear, whitethroat, and yellowhammer);
 - 17 bat species of which seven species were recorded within the Project site (brown long-eared bat, common pipistrelle, Daubenton's bat, Natterer's bat, noctule, soprano pipstrelle and barbastelle);
 - 119 records of otter including seven within the Project site;





- 226 records of badger including 17 within the Project site; and,
- Records of six other mammal species including four species within the Project site: brown hare, European hedgehog, European water vole and hazel dormouse.
- 4.1.3 The desk study also identified records of 22 non-native invasive species within the Study Area comprising one mammal, one bird, six invertebrates (all aquatic crustaceans or molluscs) and 15 flowering plants. There were no records from within the Project site.





5 References

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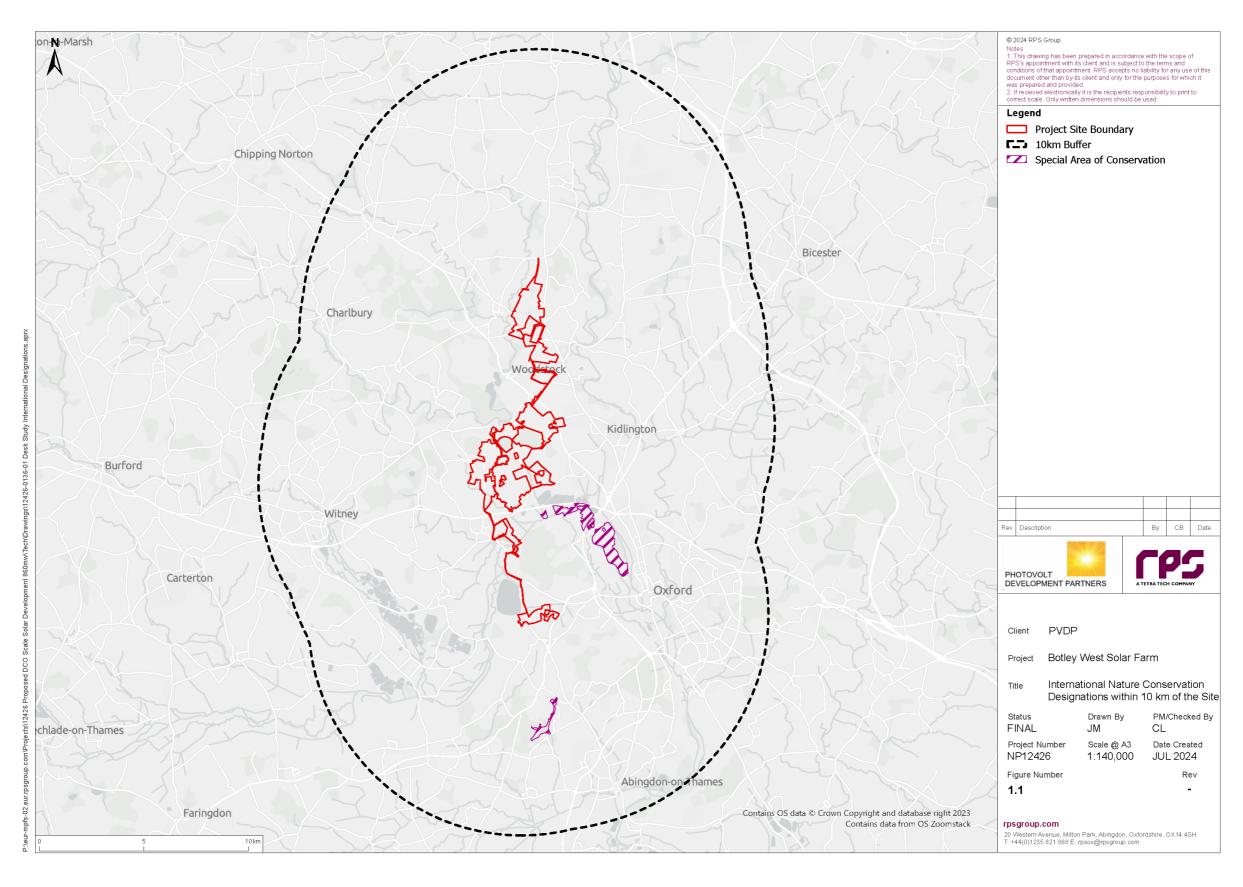
Annex A

Figures





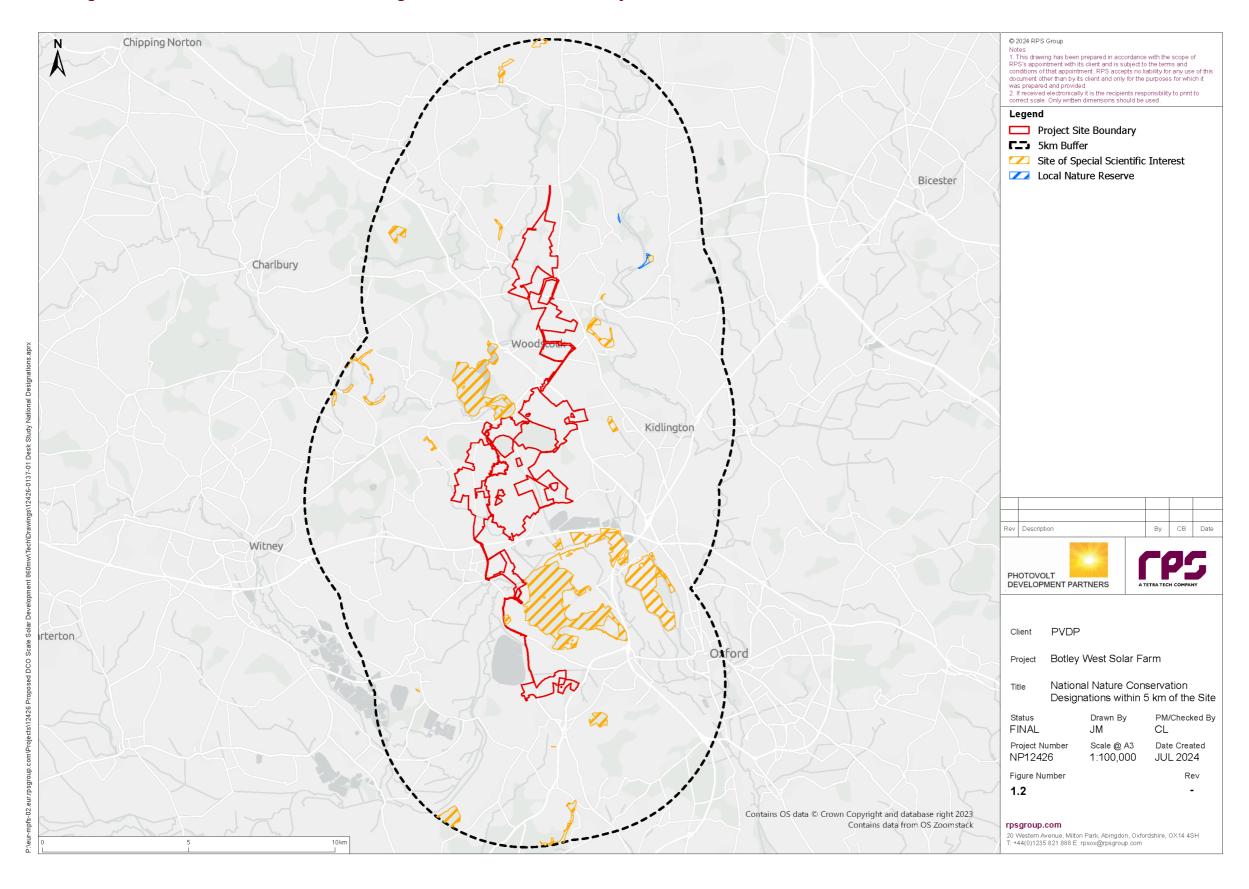
Anx Figure 1 International nature conservation designation within 10km of the Project site.







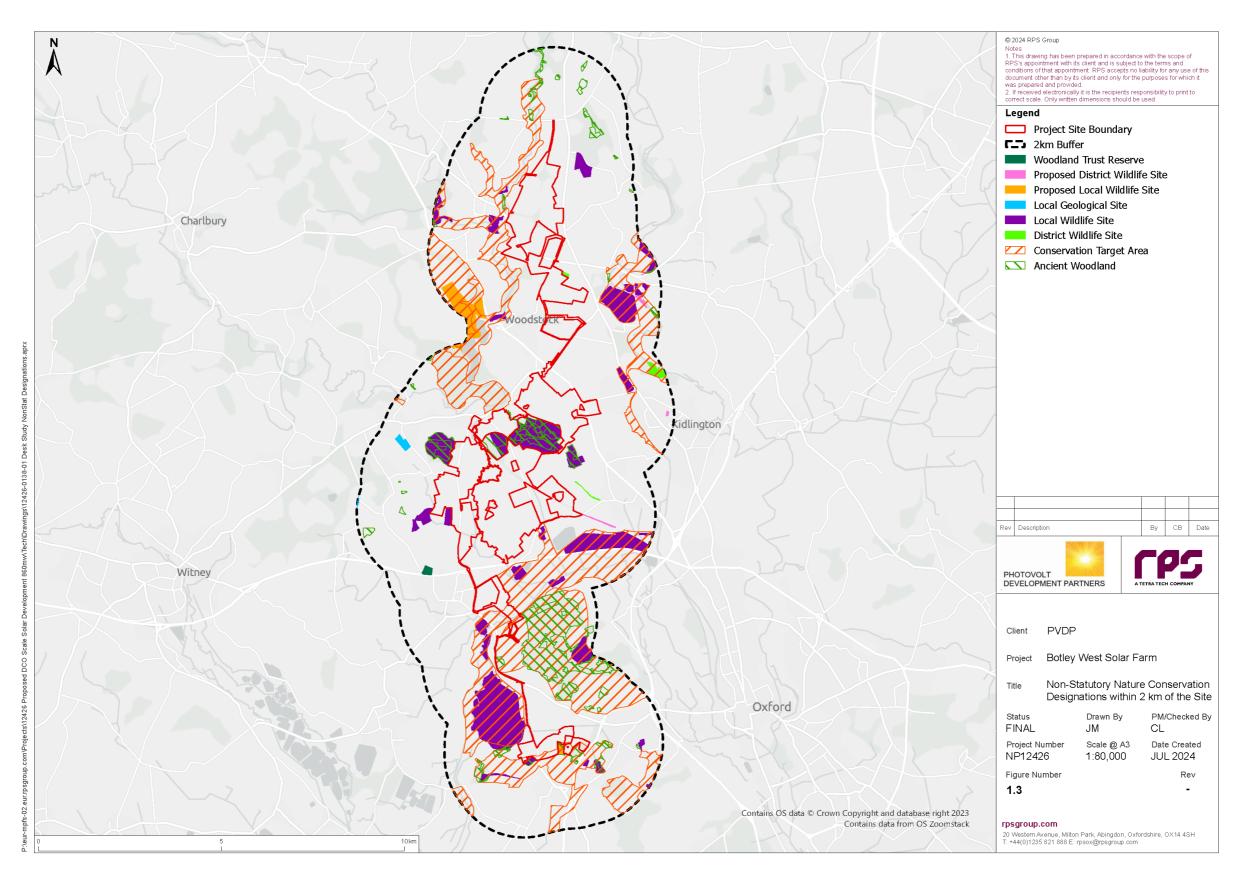
Anx Figure 2 National nature conservation designation within 5km of the Project site.







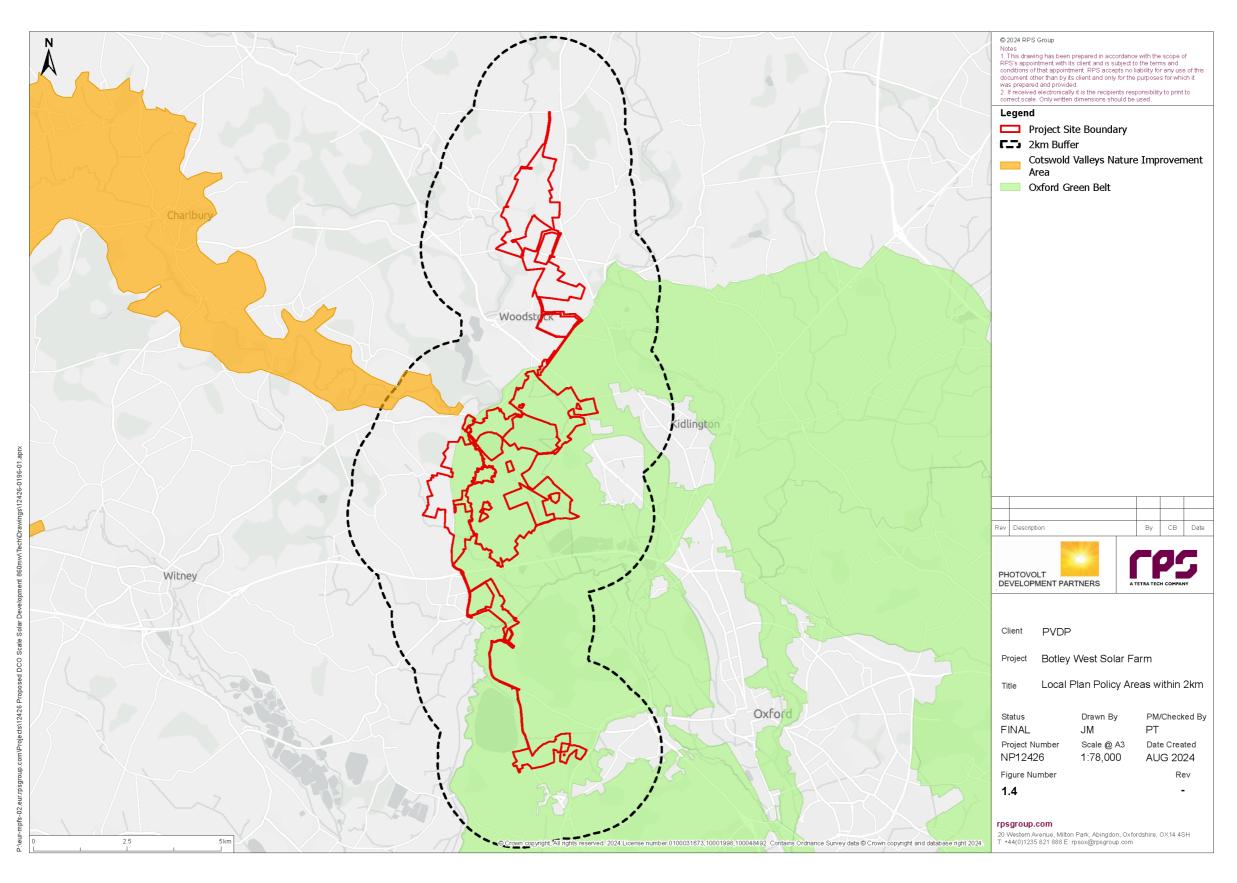
Anx Figure 3 Non-statutory nature conservation designations within 2 km of the Project site.







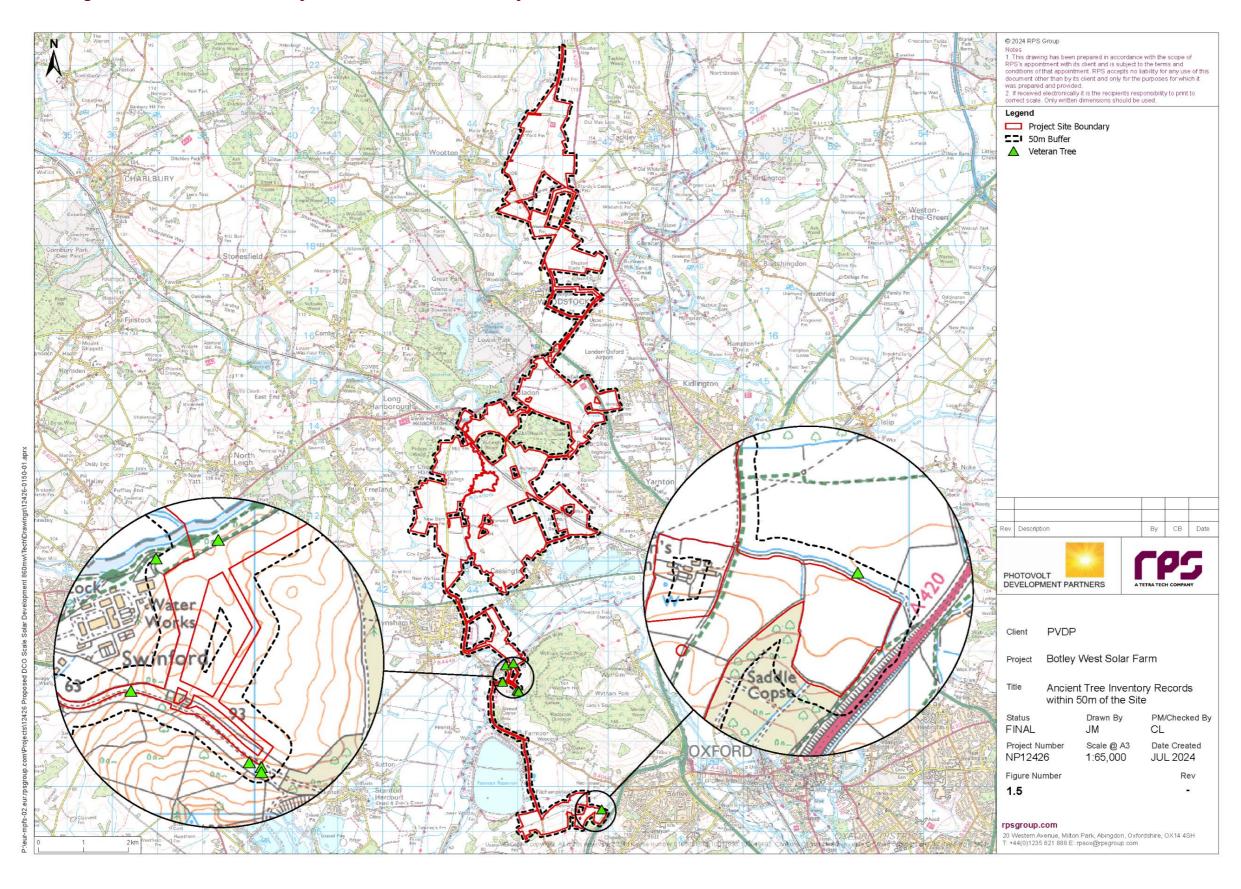
Anx Figure 4 Local plan policy areas within 2km of the Project site.







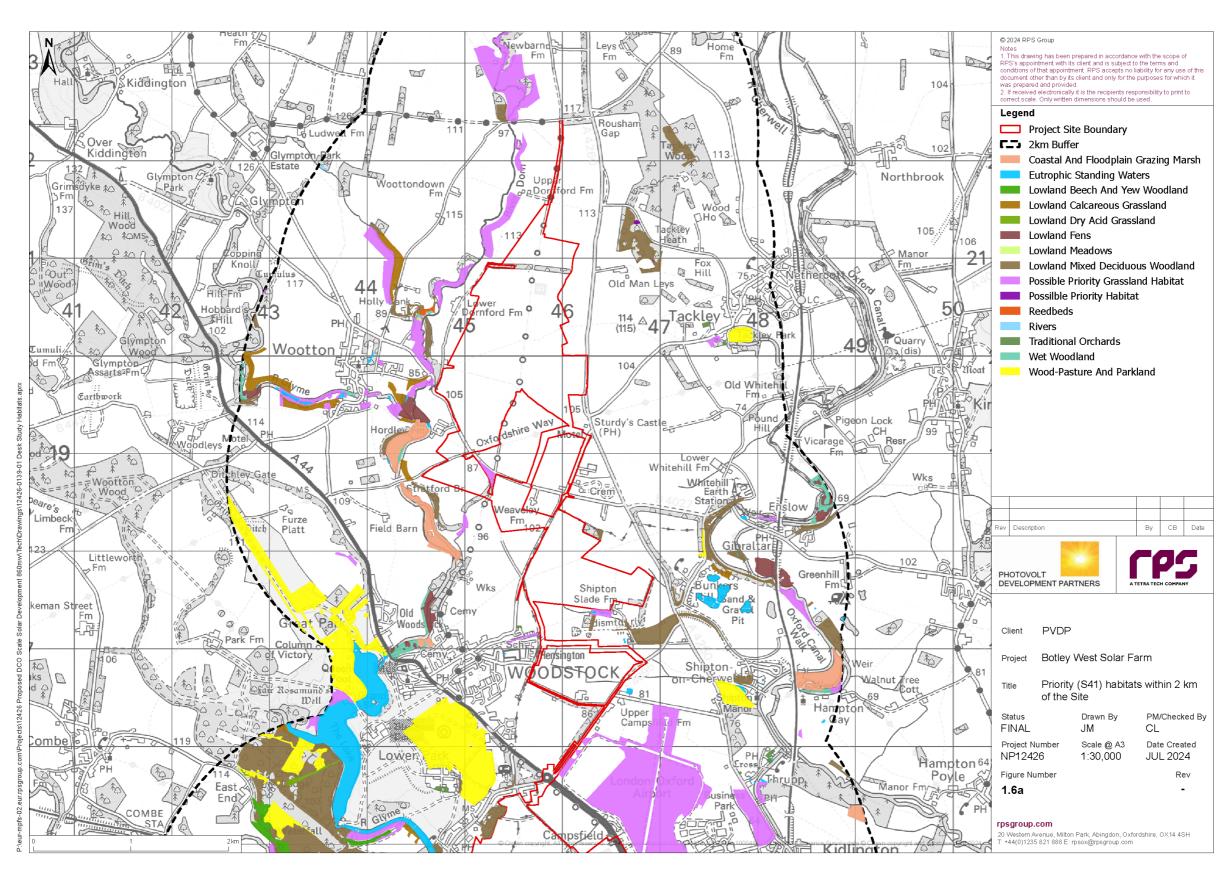
Anx Figure 5 Ancient Tree Inventory trees within 50m of the Project site.







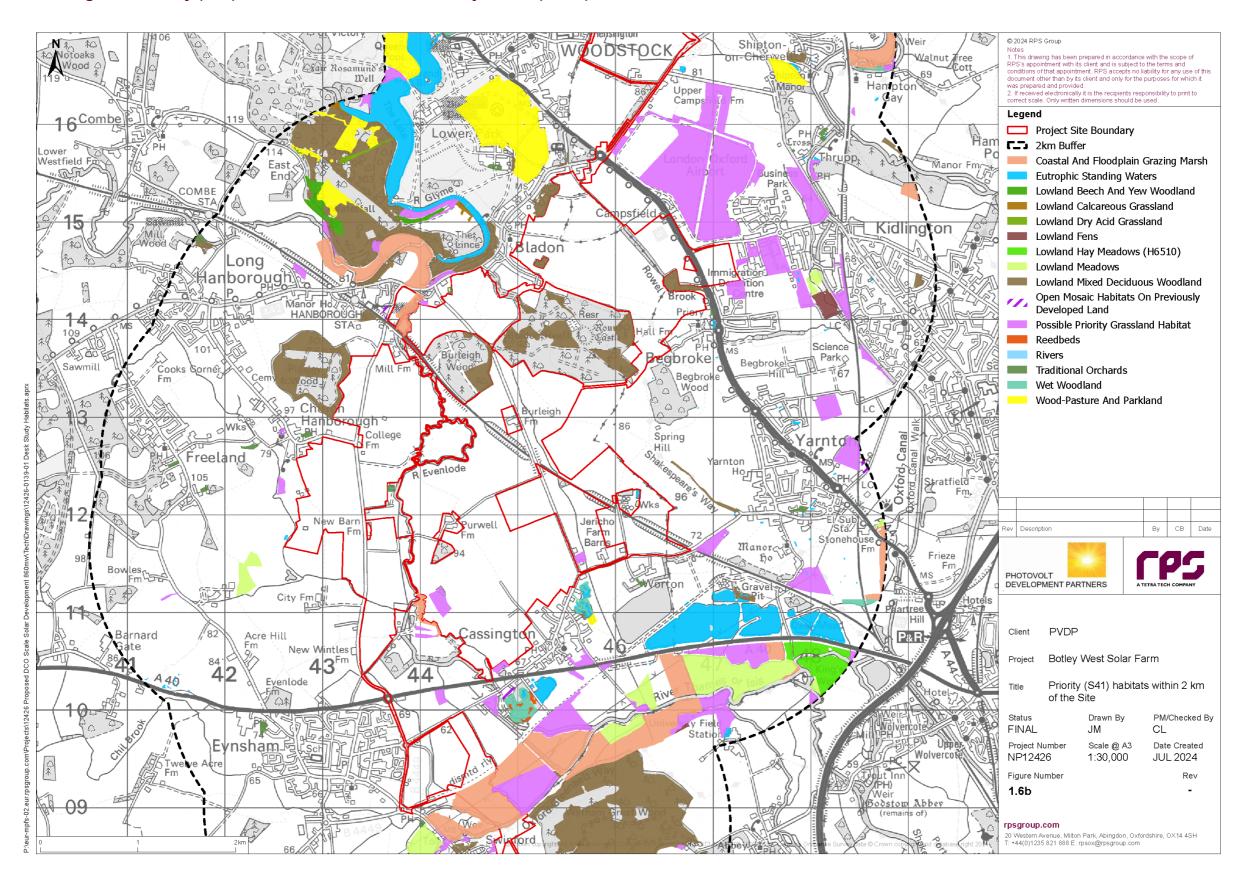
Anx Figure 6 Priority (S41) habitats within 2 km of the Project site (1 of 3).







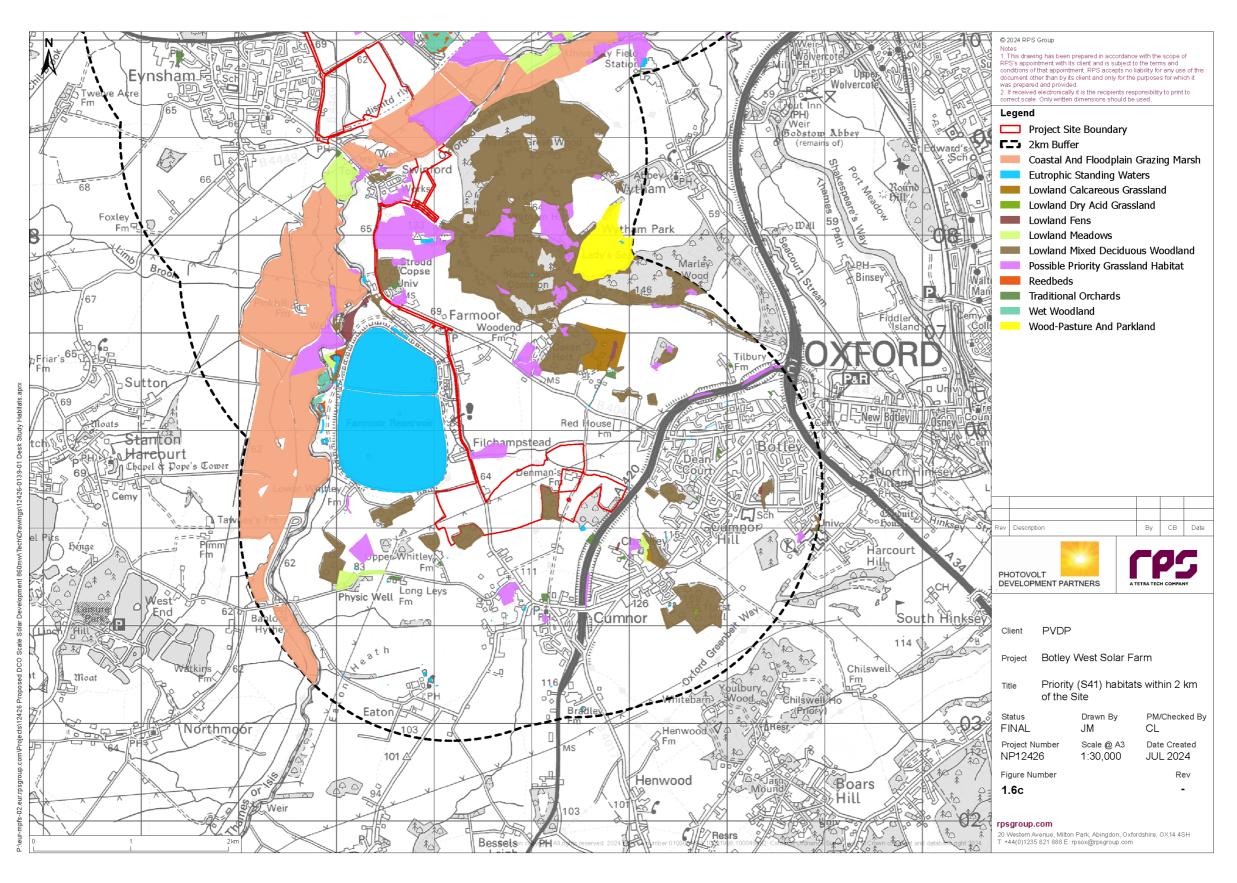
Anx Figure 7 Priority (S41) habitats within 2 km of the Project site (2 of 3).







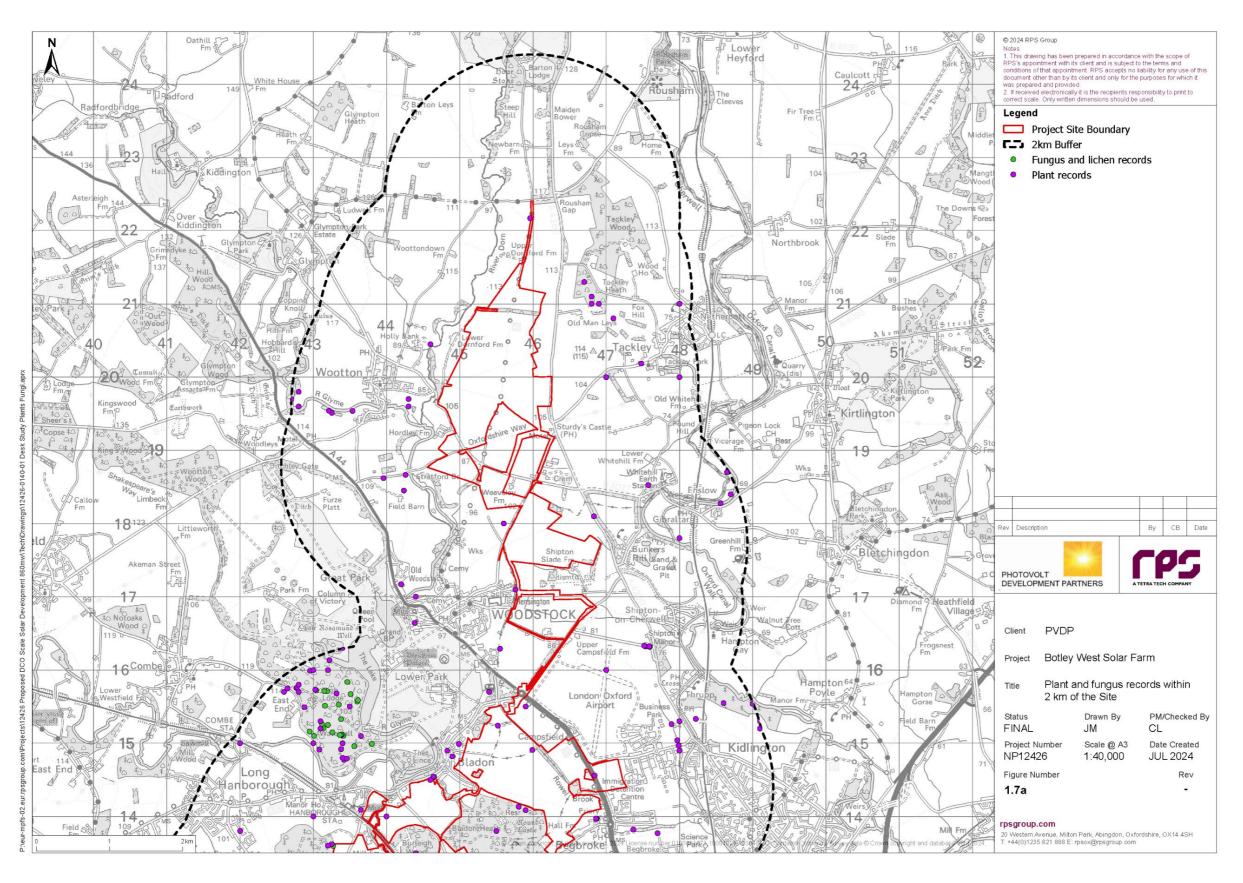
Anx Figure 8 Priority (S41) habitats within 2 km of the Project site (3 of 3).







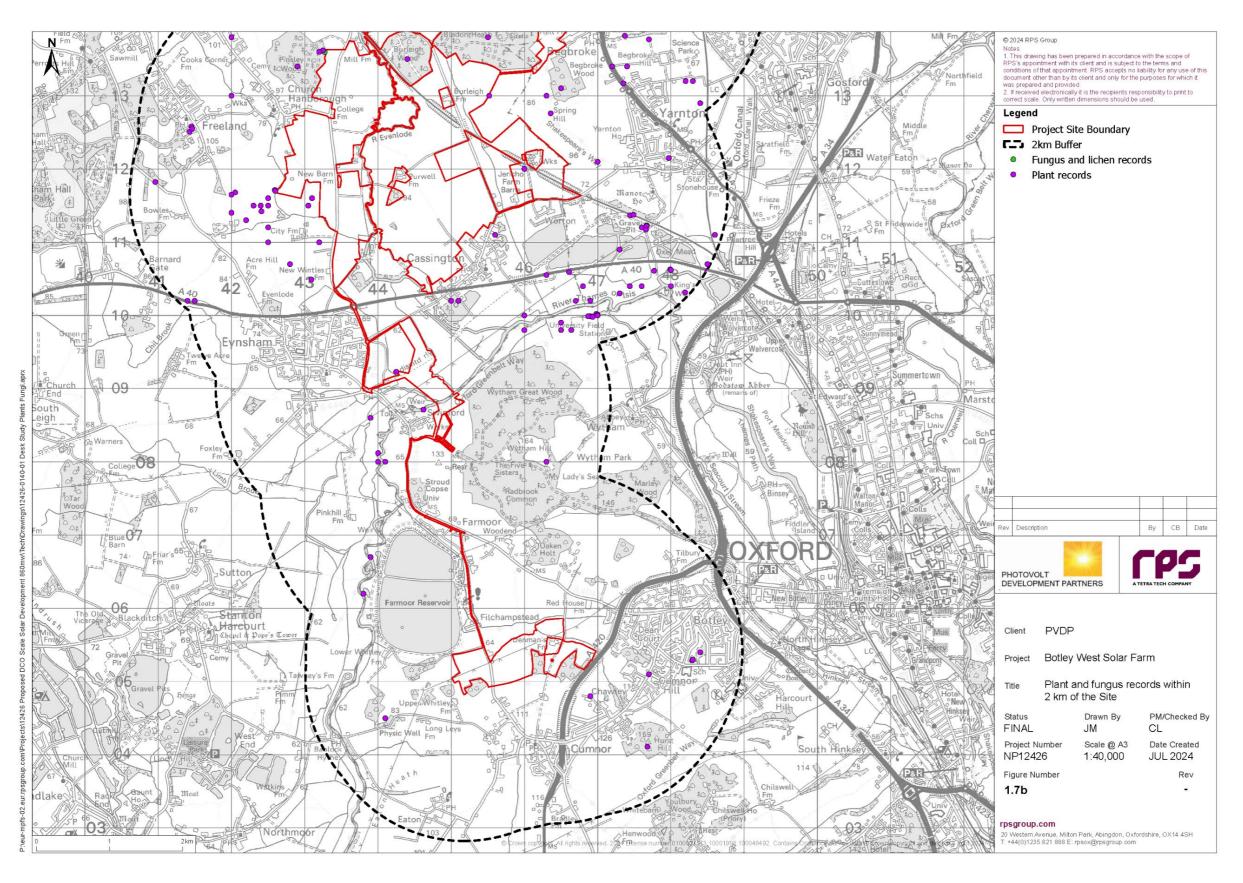
Anx Figure 9 Plant and fungus records within 2 km of the Project site (1 of 2).







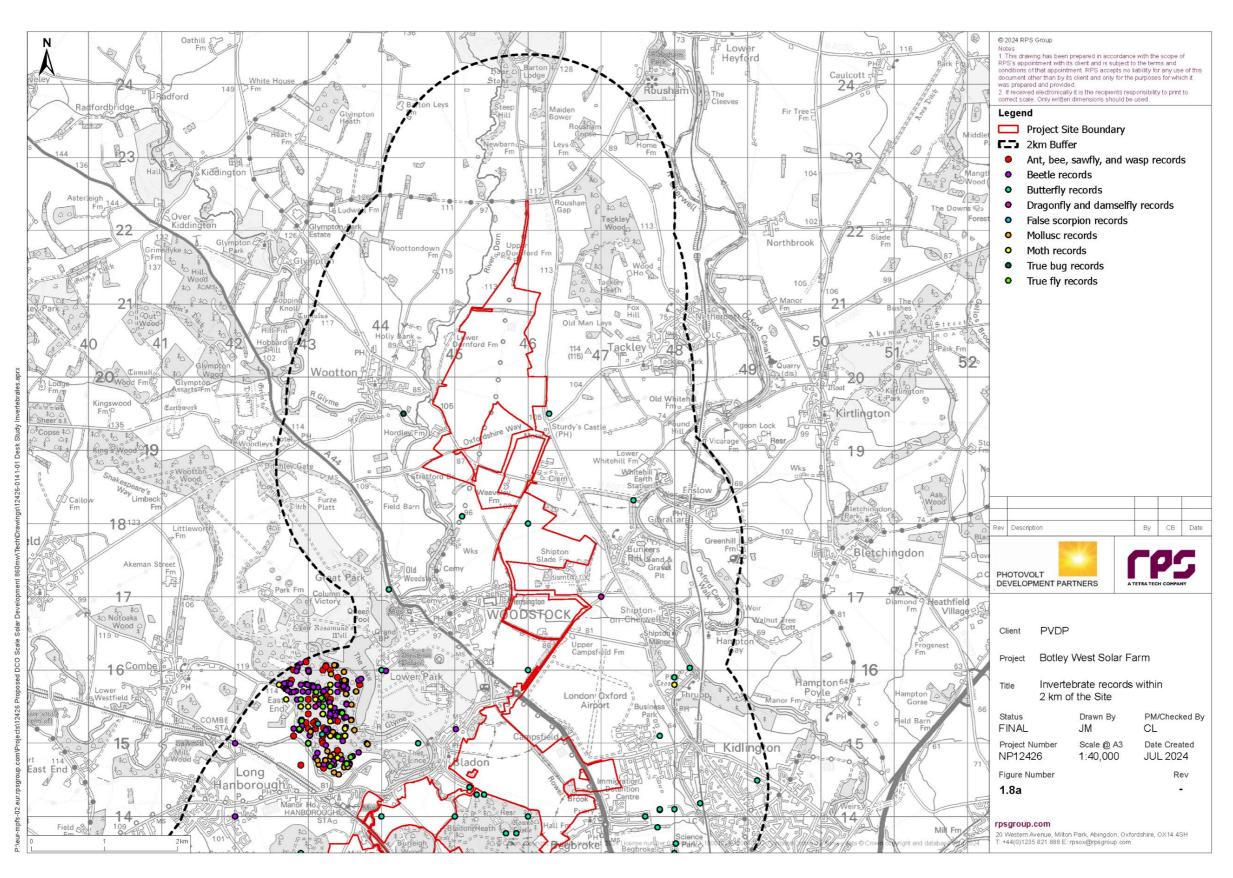
Anx Figure 10 Plant and fungus records within 2 km of the Project site (2 of 2).







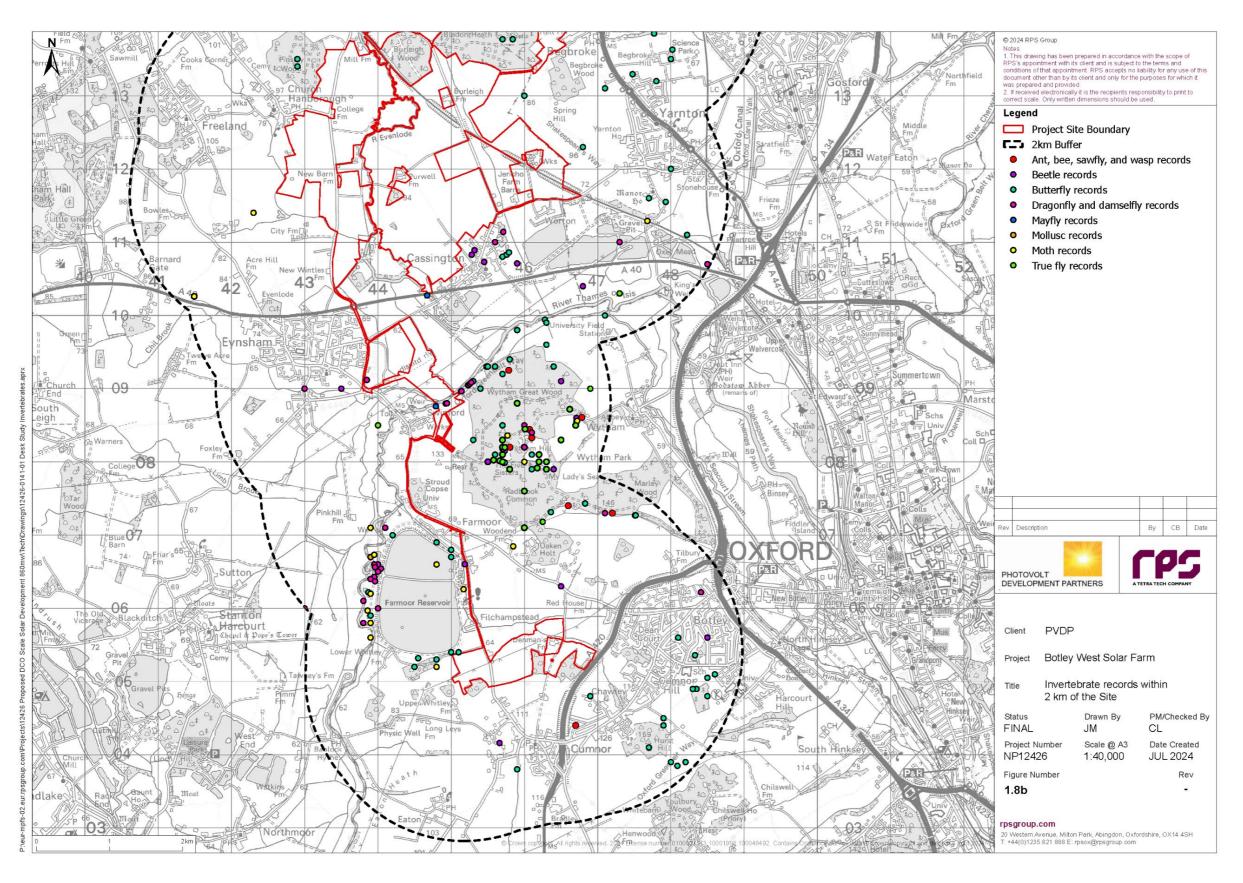
Anx Figure 11 Invertebrate records within 2 km of the Project site (1 of 2).







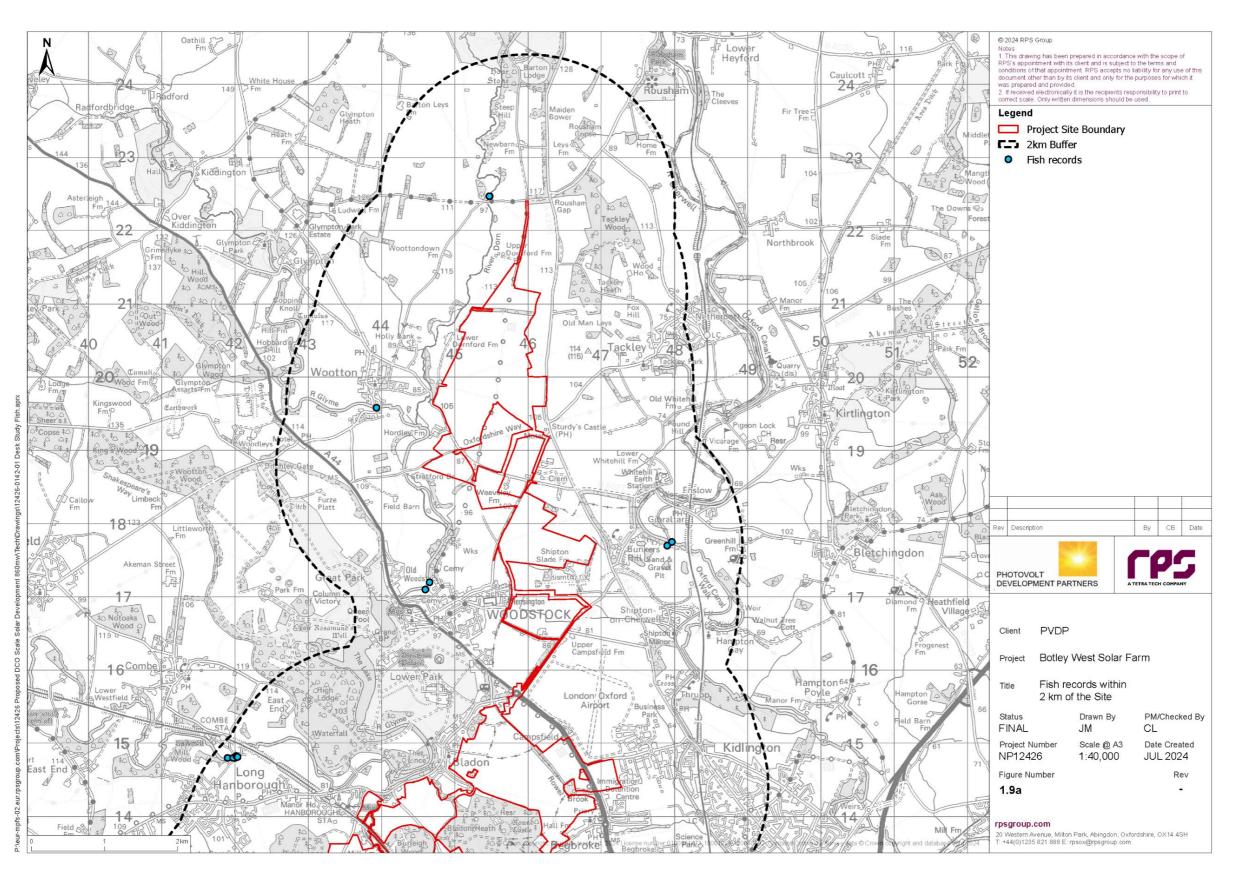
Anx Figure 12 Invertebrate records within 2 km of the Project site (2 of 2).







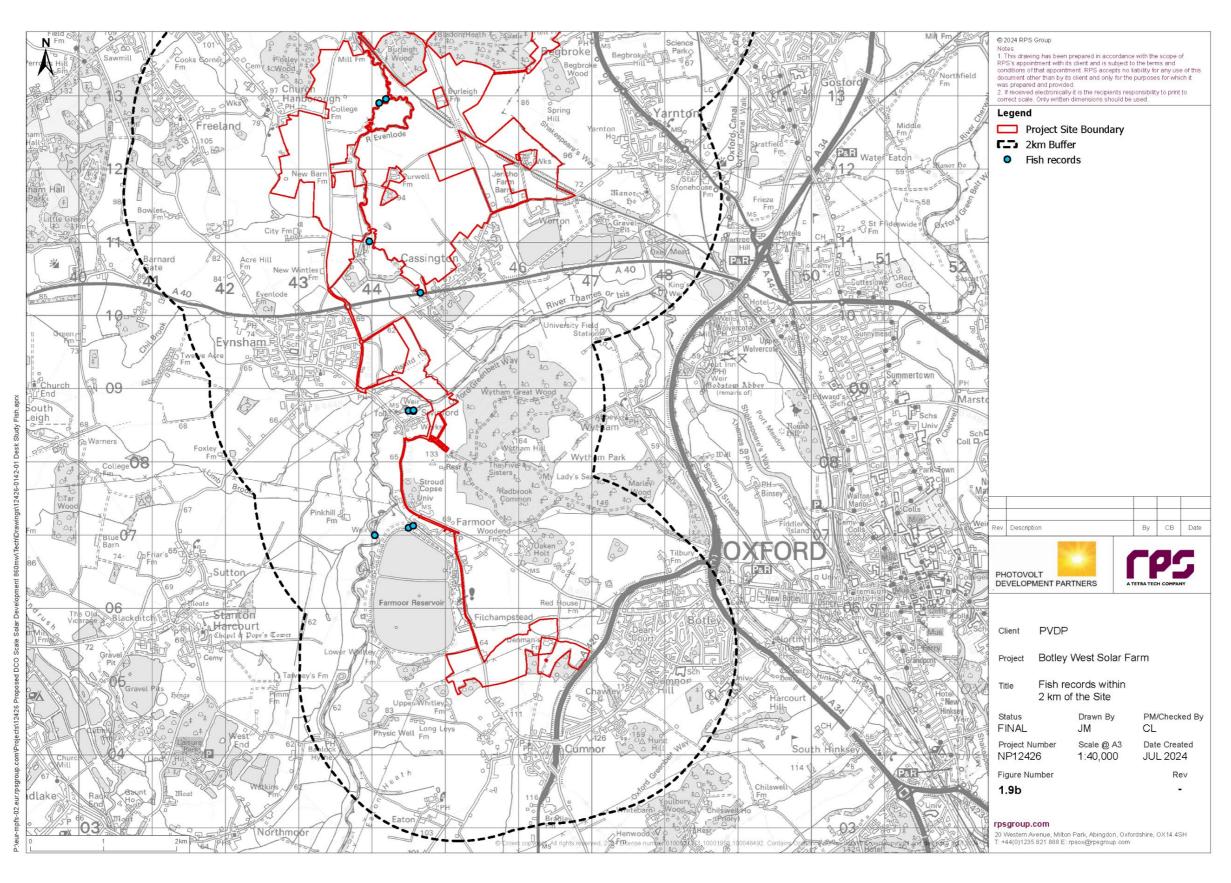
Anx Figure 13 Fish records within 2 km of the Project site (1 of 2).







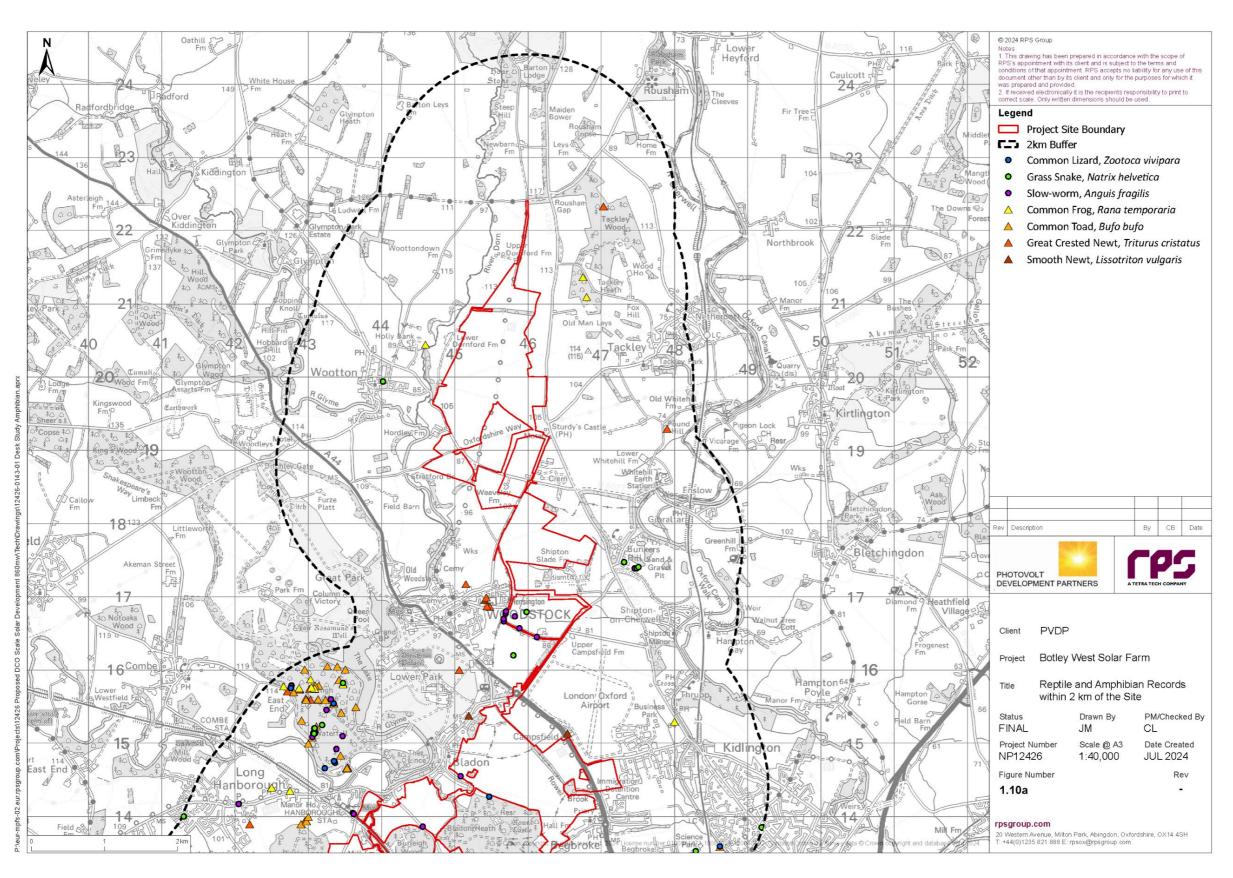
Anx Figure 14 Fish records within 2 km of the Project site (2 of 2).







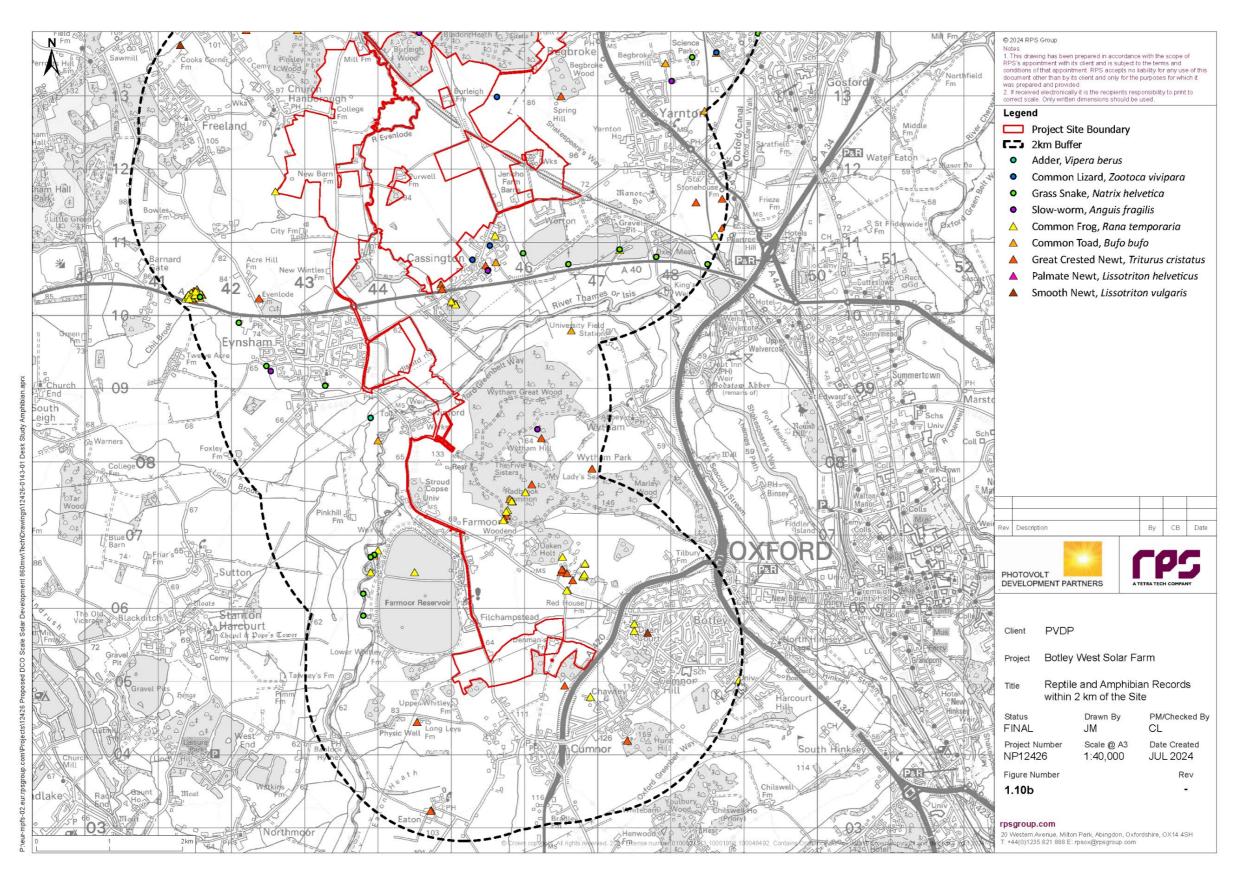
Anx Figure 15 Amphibian and Reptile records within 2 km of the Project site (1 of 2).







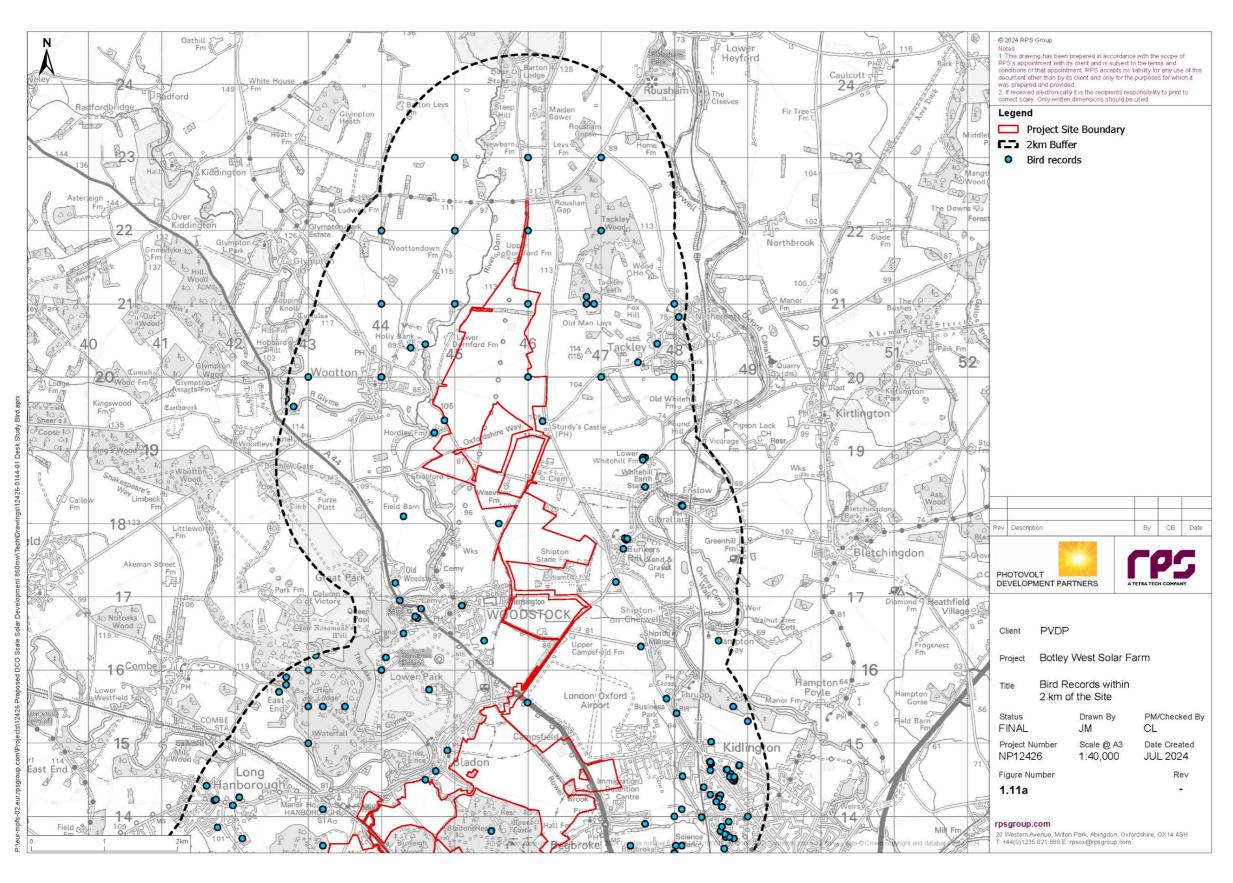
Anx Figure 16 Amphibian and Reptile records within 2 km of the Project site (2 of 2).







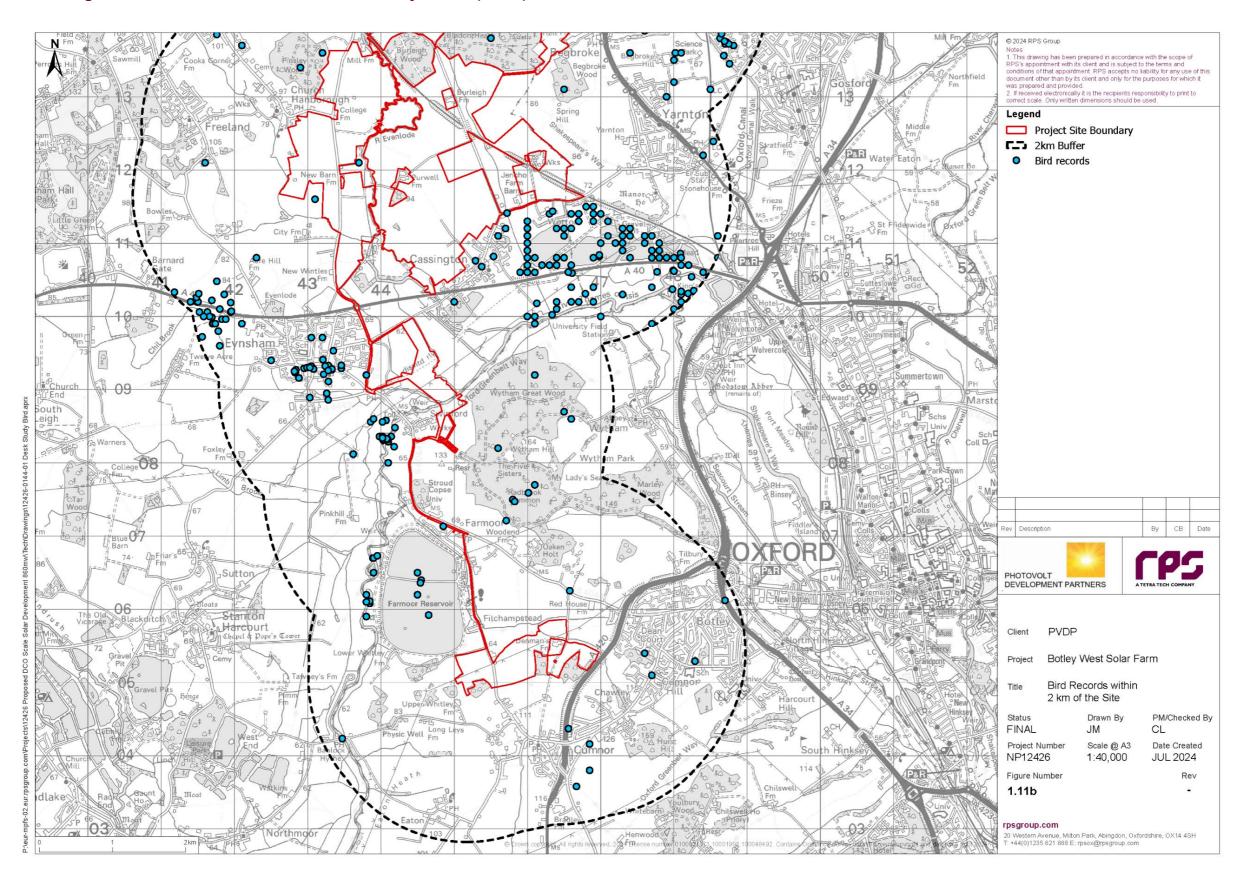
Anx Figure 17 Bird records within 2 km of the Project site (1 of 2).







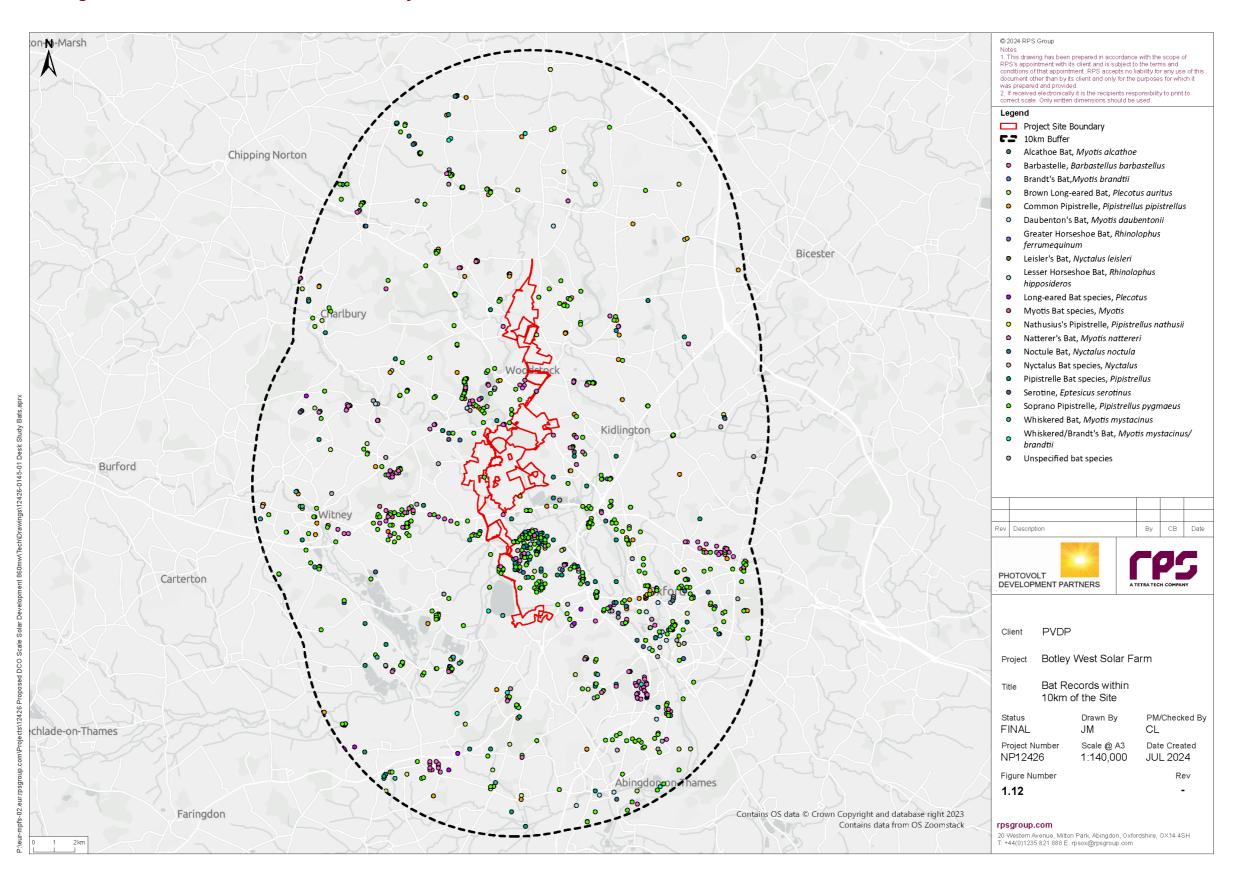
Anx Figure 18 Bird records within 2 km of the Project site (2 of 2).







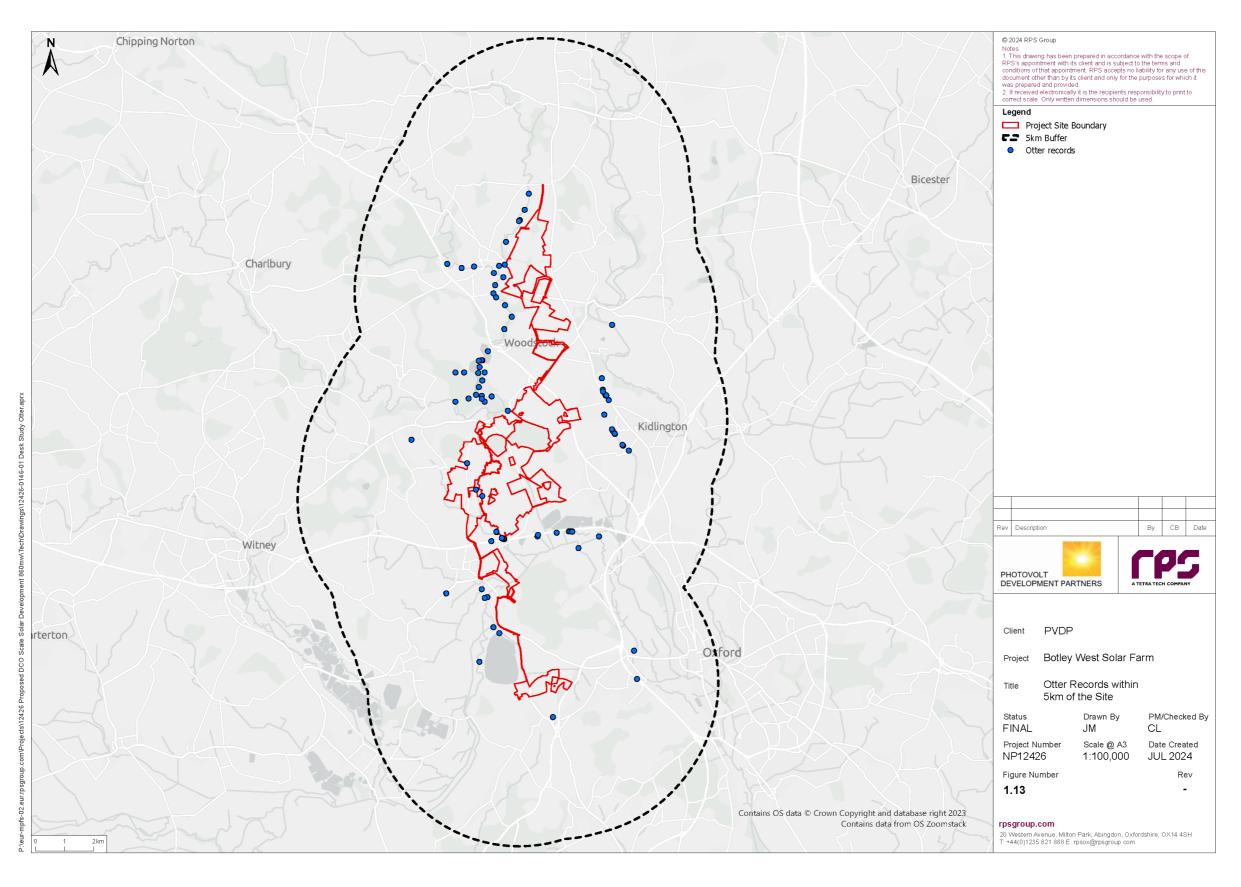
Anx Figure 19 Bat records within 10 km of the Project site.







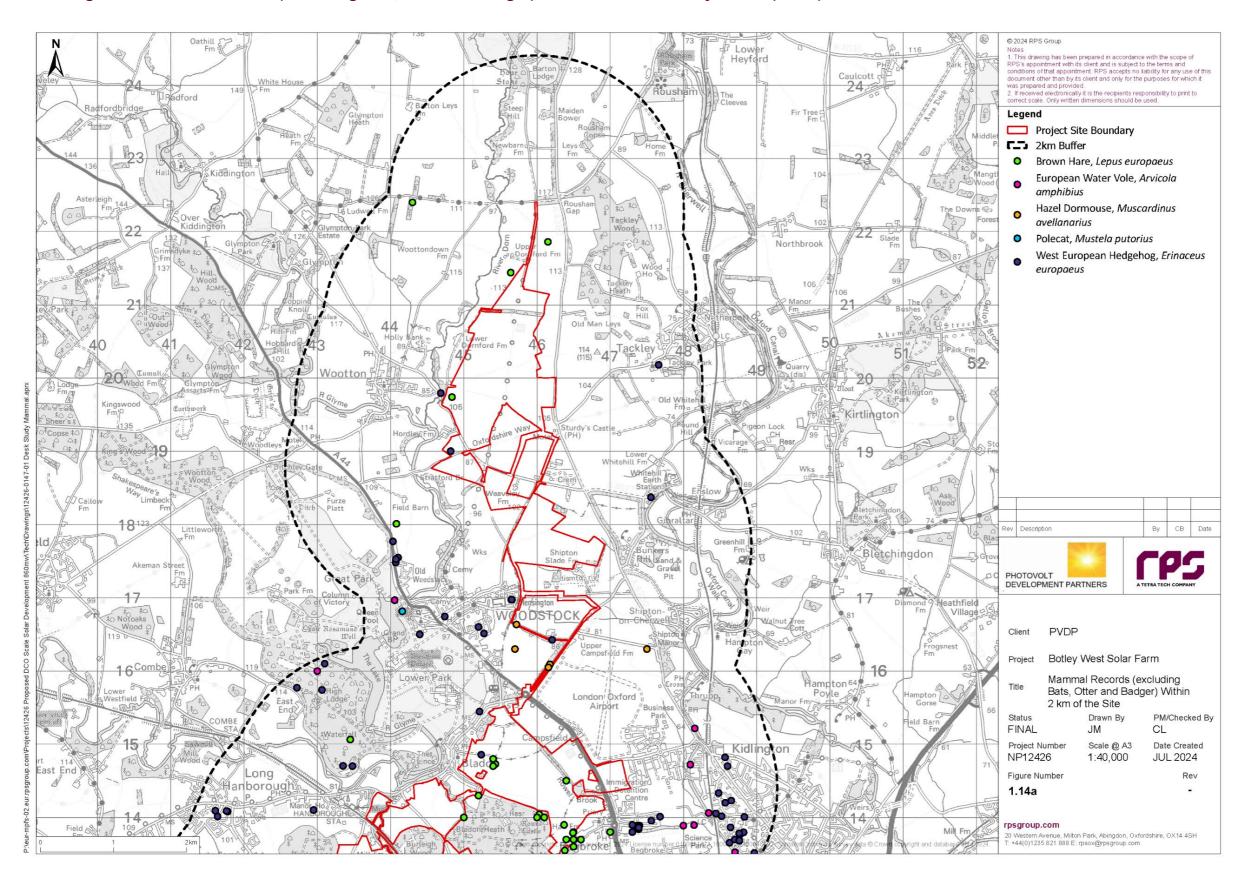
Anx Figure 20 Otter records within 5 km of the Project site.







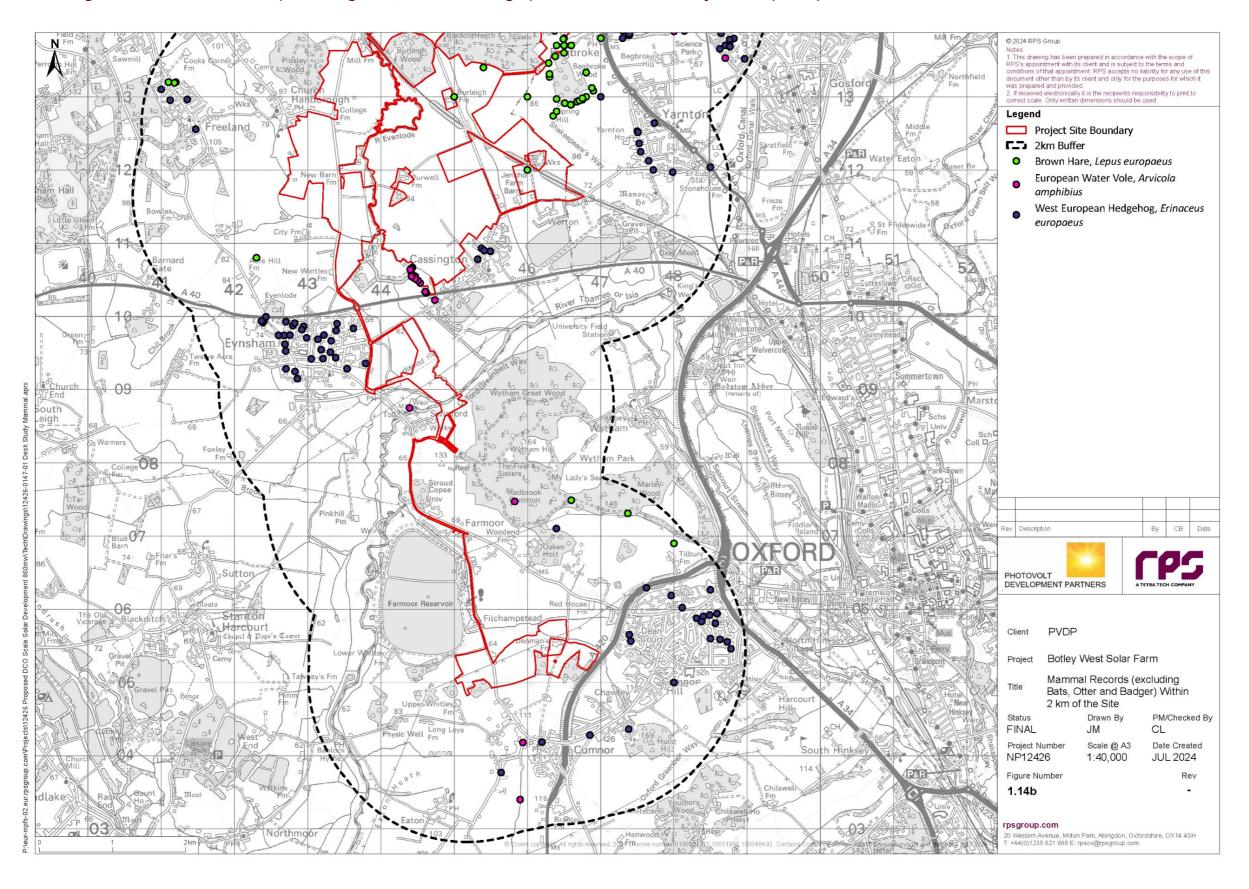
Anx Figure 21 Mammal records (excluding bats, otter and badger) within 2 km of the Project site (1 of 2).







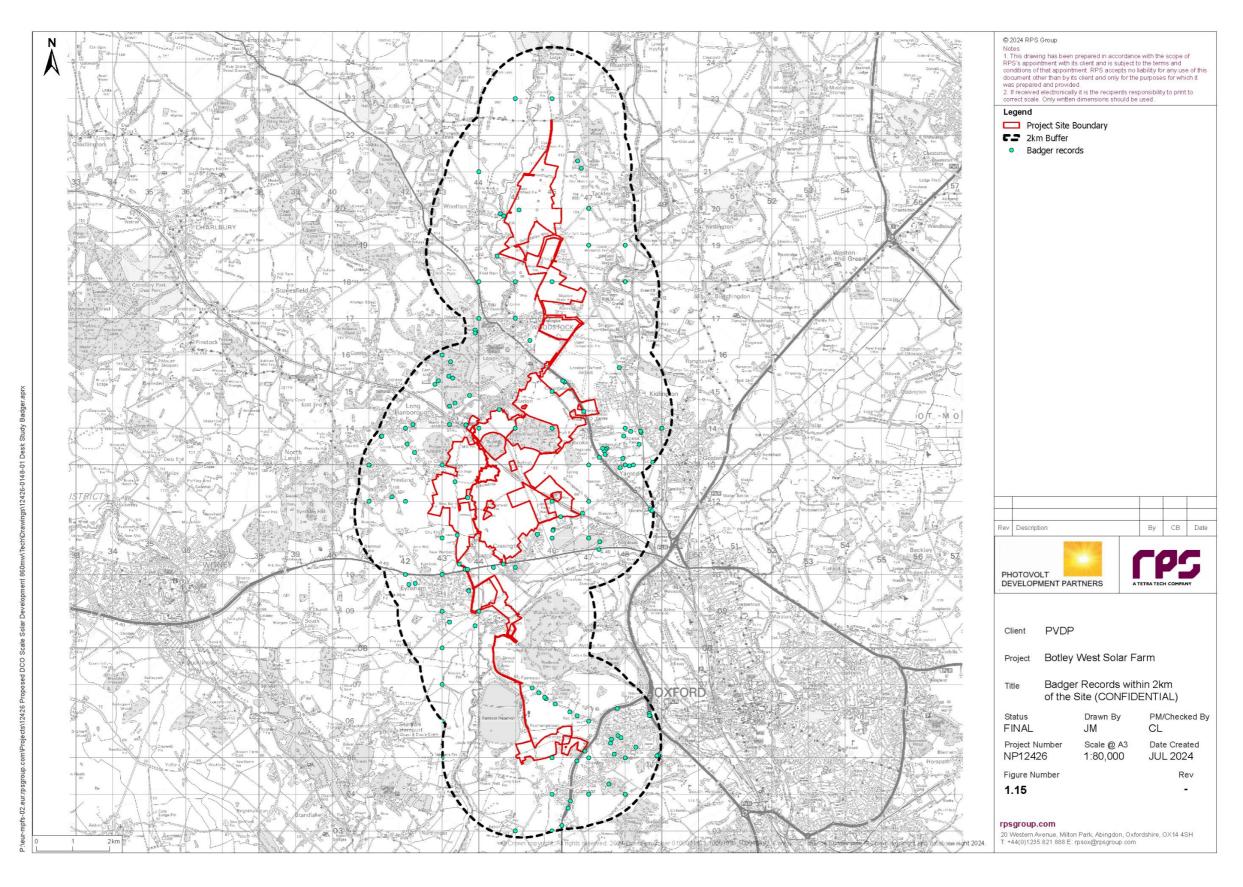
Anx Figure 22 Mammal records (excluding bats, otter and badger) within 2 km of the Project site (1 of 2).







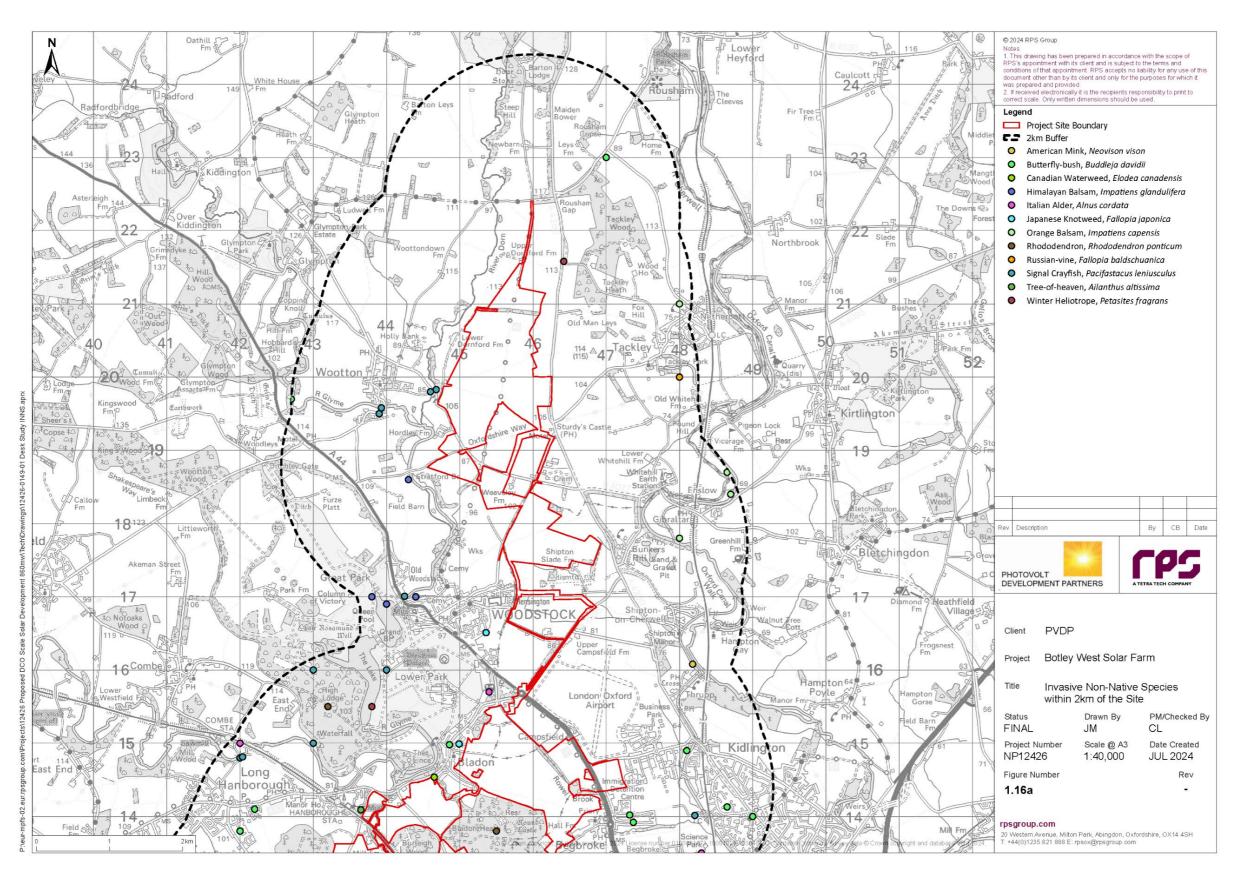
Anx Figure 23 Badger records within 2km of the Project site (CONFIDENTIAL).







Anx Figure 24 Invasive non-native species records within 2km of the Project site (1 of 2).







Anx Figure 25 Invasive non-native species records within 2km of the Project site (2 of 2).

