

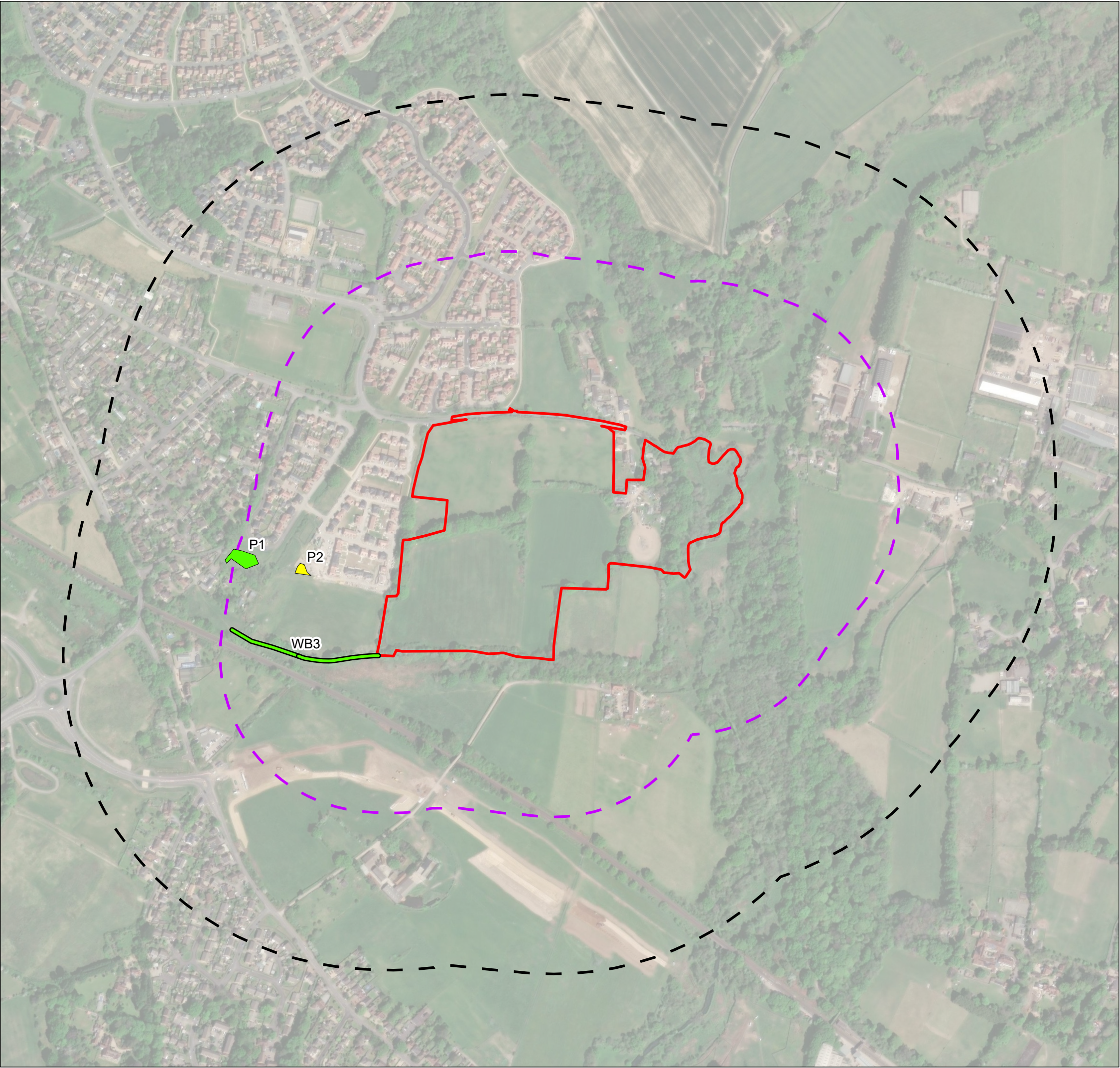


Figure 6 eDNA Results

KEY

- Site boundary
- 250m linear distance from site boundary
- 500m linear distance from site boundary
- Negative
- No access

SCALE: 1:6,000 at A3

0 100 200 300 400 Metres

N



CLIENT: Bloor Homes Ltd

PROJECT: Land South of Maddoxford Lane

DATE: 05 February 2026

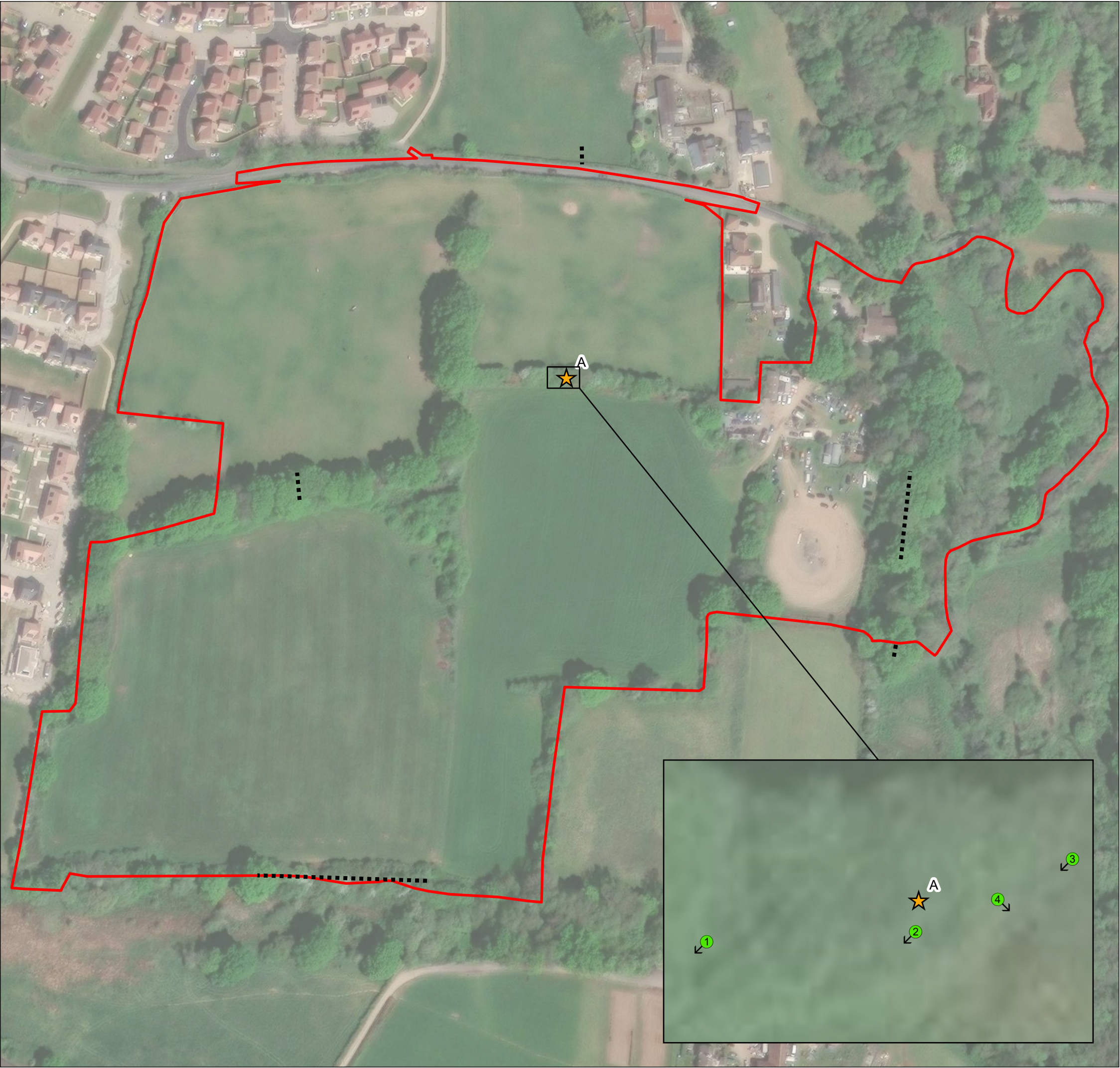


Figure 7 Badger Survey Results Summary

- KEY
- Site boundary
 - Outlier sett
 - Disused entrance
 - Tunnel direction
 - Mammal path

Main Map Frame:
SCALE: 1:2,000 at A3

0 20 40 60 80 100 Metres



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Figure 8 Ground Level Tree Assessment Results

- KEY
- Site boundary
 - PRF-M
 - PRF-I

SCALE: 1:2,000 at A3

0 20 40 60 80 100 Metres



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Figure 9 Night-time Bat Walkover Route

- KEY
- Site boundary
 - Fixed point survey location
 - Bat transect route

SCALE: 1:2,000 at A3

0 20 40 60 80 100 Metres



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Figure 10a Bat Survey Results 17/04/2023

- KEY
- Site boundary
 - Fixed point survey location
 - Bat transect route
 - Common Pipistrelle (heard not seen)
 - Soprano Pipistrelle (heard not seen)
 - Common Pipistrelle observed flight
 - Soprano Pipistrelle observed flight
 - (f) Foraging
 - x3 Number of bats

SCALE: 1:1,250 at A3

0 25 50 75 Metres



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DATE: 05 February 2026

Figure 10b Bat Survey Results 15/05/2023



- KEY
- Site boundary
 - Fixed point survey location
 - Bat transect route
 - Common Pipistrelle (heard not seen)
 - Soprano Pipistrelle (heard not seen)
 - Common Pipistrelle observed flight
 - Pipistrelle species observed flight
 - (f) Foraging
 - (p) Pass
 - x3 Number of bats

SCALE: 1:1,250 at A3

0 25 50 75 Metres



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PROJECT: Land South of Maddoxford Lane

DATE: 05 February 2026

Figure 10c Bat Survey Results 19//062023



KEY

- Site boundary
- Fixed point survey location
- Bat transect route
- Common Pipistrelle (heard not seen)
- Soprano Pipistrelle (heard not seen)
- Noctule (heard not seen)
- Common Pipistrelle observed flight
- Soprano Pipistrelle observed flight
- (c) Commuting
- (f) Foraging
- (p) Pass
- x3 Number of bats

SCALE: 1:1,250 at A3

0 25 50 75 Metres



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PROJECT: Land South of Maddoxford Lane

DATE: 05 February 2026

Y:\Land at Holly Tree Farm, Maddoxford Lane 3125\GIS\EN\Figure10c_NTBW_Results_190623_P3125_4284_050226.aprx

Figure 10d Bat Survey Results 17/07/2023



KEY

- Site boundary
- Fixed point survey location
- Bat transect route
- Common Pipistrelle (heard not seen)
- Soprano Pipistrelle (heard not seen)
- Common Pipistrelle observed flight
- (f) Foraging
- (p) Pass

SCALE: 1:1,250 at A3
0 25 50 75 Metres



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PROJECT: Land South of Maddoxford Lane
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Figure 10e Bat Survey Results 21/08/2023

- KEY
- Site boundary
 - Fixed point survey location
 - Bat transect route
 - Common Pipistrelle (heard not seen)
 - Soprano Pipistrelle (heard not seen)
 - Unidentified bat (heard not seen)
 - Common Pipistrelle observed flight
 - Soprano Pipistrelle observed flight
 - Noctule observed flight
 - (c) Commuting
 - (f) Foraging
 - (s) Social calling
 - x3 Number of bats

SCALE: 1:1,250 at A3

0 25 50 75 Metres



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Figure 10f Bat Survey Results 02/10/2024



KEY

- Site boundary
- Fixed point survey location
- Bat transect route
- Common Pipistrelle (heard not seen)
- Soprano Pipistrelle (heard not seen)
- Common Pipistrelle observed flight
- (c) Commuting
- (f) Foraging
- (p) Pass
- x3 Number of bats

SCALE: 1:1,250 at A3

0 25 50 75 Metres



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Figure 11a Night-time Bat Walkover Survey Results 29/08/2024

KEY

Site boundary

×

Fixed point survey location

Bat transect route

Common Pipistrelle (heard not seen)

Soprano Pipistrelle (heard not seen)

Myotis species (heard not seen)

Noctule (heard not seen)

Serotine (heard not seen)

Low-frequency bat (heard not seen)

Common Pipistrelle observed flight

(c)

Commuting

(f)

Foraging

(p)

Pass

x3

Number of bats

SCALE: 1:1,750 at A3

0

20

40

60

80

100 Metres

N



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Figure 11b Night-time Bat Walkover Survey Results 24/09/2024

- KEY
- Site boundary
 - Fixed point survey location
 - Bat transect route
 - Common Pipistrelle (heard not seen)
 - Soprano Pipistrelle (heard not seen)
 - Myotis species (heard not seen)
 - Common Pipistrelle observed flight
 - (f) Foraging
 - (p) Pass
 - x3 Number of bats

SCALE: 1:1,750 at A3

0 20 40 60 80 100 Metres



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Figure 11c Night-time Bat Walkover Survey Results 06/05/2025

- KEY
- Site boundary
 - Fixed point survey location
 - Bat transect route
 - Common Pipistrelle (heard not seen)
 - Common Pipistrelle observed flight
 - Soprano Pipistrelle observed flight
 - (c) Commuting
 - (f) Foraging
 - (p) Pass
 - (s) Social calling
 - x3 Number of bats

SCALE: 1:1,750 at A3

0 20 40 60 80 100 Metres



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Figure 12 Automated Static Bat Detector Locations

- KEY
-  Site boundary
 -  Automated detector location

SCALE: 1:2,000 at A3

0 20 40 60 80 100 Metres



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Figure 13a Hazel Dormouse Tube Locations

KEY

Site boundary

● Tube

SCALE: 1:2,000 at A3

0 20 40 60 80 100 Metres



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Figure 13b Hazel Dormouse Survey Results

- KEY
- Site boundary
 - Woodmouse evidence
 - No evidence

SCALE: 1:2,000 at A3

0 20 40 60 80 100 Metres



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Figure 14a Reptile Refugia

- KEY
- Site boundary
 - Felt
 - Natural refugia
 - Onduline
 - Tin

SCALE: 1:2,000 at A3

0 20 40 60 80 100 Metres



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Figure 14b Reptile Survey Results

- KEY
- Site boundary
 - Slow-worm
 - Refugia

SCALE: 1:2,000 at A3

0 20 40 60 80 100 Metres



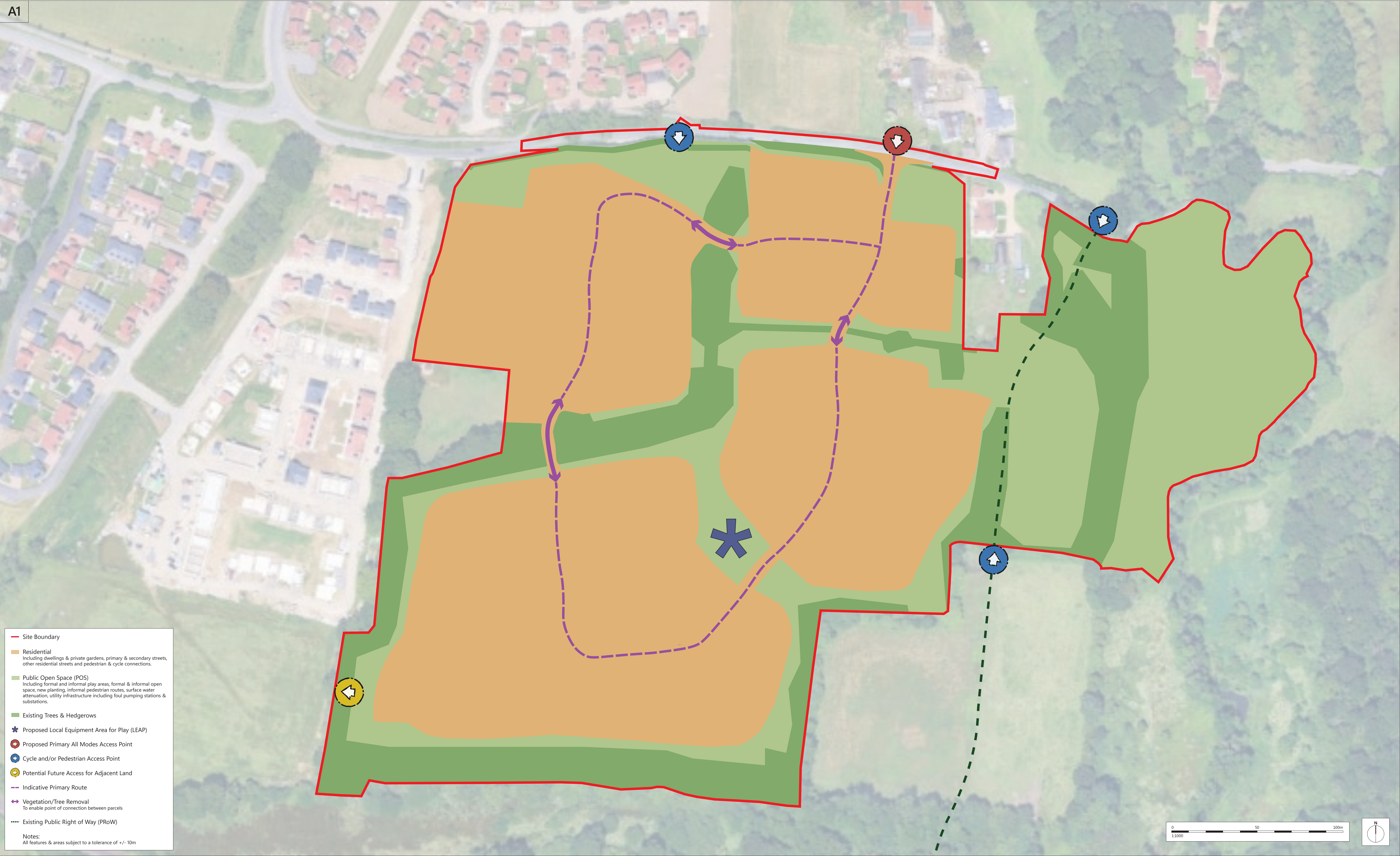
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PROJECT: Land South of Maddoxford Lane

DATE: 05 February 2026

Appendix 1

Proposed Development



Romsey T: 01794 367703
Portishead T: 01275 407000
London T: 01794 367703

www.thrivearchitects.co.uk

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Rev	Description	Date	Au	Ch
P1	Preliminary issue	04.11.25	GR/NR	GR
P2	Revised parcels and design changes	13.11.25	GR/NR	GR
P3	Revised parcels	17.11.25	GR/NR	GR
P4	Revised parcels & key	04.12.25	DB/GR	GR
P5	Revised key & primary route	05.12.25	DB/GR	GR
P6	Revised primary route	05.12.25	DB/GR	GR

Project	Land South of Maddoxford Farm, Boorley Green		
Drawing	Land Use and Access Plan		
Client	Bloors (Newbury)		
Job no.	BLOO240103	Date	05.12.25
Dwg no.	LUP-01	Rev.	P6
Author	DB/GR	Checked	GR
Status	PRELIMINARY	Scale	1:1000@A1
		Office	Romsey
Client ref.	-		



Appendix 2

Relevant Legislation & Planning Policy

LEGISLATION

The Environment Act 2021

The Environment Act 2021 places a requirement on the Secretary of State to make regulations setting out long-term targets for air quality, water, biodiversity, resource efficiency and waste reduction. It also requires the Government to produce an Environmental Improvement Plan, to report on progress towards its goals annually, to meet the targets that are set in relation to the improvement of the natural environment and to produce remedial plans should this not be achieved.

In relation to water quality, the Act places new duties on the Government, Environment Agency and sewerage undertakers to reduce the frequency and harm of discharges from storm overflows on the environment, and for monitoring the quality of watercourses affected by those overflows.

It also includes a requirement for an independent Office for Environmental Protection (OEP) to be established, with responsibilities for monitoring and reporting on progress against environmental improvement plans and targets. The OEP will also have investigation and enforcement powers against public authorities failing to comply with environmental law when exercising their functions.

The Act makes provisions for 10% biodiversity gain to become a condition of planning permission in England, through amendments to the Town and Country Planning Act 1990. These amendments are due to come into force on the 12th February 2024 (2nd April 2024 for 'small sites'). This will be measured through a biodiversity metric to be published by the Secretary of State. The Act also establishes Biodiversity Net Gain as a requirement for Nationally Significant Infrastructure Projects (NSIPs).

The Act also strengthens the biodiversity duty placed on public authorities through amendments to the Natural Environment and Rural Communities Act 2006 Section 40, requiring such authorities to not only conserve but also enhance biodiversity when exercising their functions. Public authorities will also be required to publish summary reports of actions taken under Section 40 at least every five years.

The Act provides the legal basis for the creation of Local Nature Recovery Strategies (LNRSs) for England (including specifying their content), and the preparation and publication of species conservation strategies and protected sites strategies.

It also creates a new legal vehicle known as a 'Conservation Covenant' which is a voluntary, legally binding private agreement between landowners and responsible bodies (the latter designated by the Secretary of State) which conserve the natural or heritage features of the land, enabling long-term conservation. Conservation Covenants are designed to 'run with the land' when it is sold or passed on and are intended to eventually become a primary mechanism for the delivery of Biodiversity Net Gain (BNG).

The Act provides new powers for the Government to amend in future Regulation 9 and Part 6 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations') –

but “only if satisfied that the regulations do not reduce the level of environmental protection provided by the Habitats Regulations”.

Several aspects of protected species licencing have also been adjusted by the Act. These include the removal of several inconsistencies between the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended), ensuring that licences issued under the former piece of legislation also apply under the latter, and making it now possible for licences to be issued under Section 16(3) of the Wildlife & Countryside Act 1981 (as amended) for purposes of overriding public interest. The maximum term of a licence that can be issued by Natural England has also been extended from 2 to 5 years.

All biodiversity-related commitments and requirements (as set out in Part 6 of the Act) will come into force upon the adoption of secondary legislation and regulations, following a period of consultation. Timescales are to be confirmed, but this is currently expected to be around late 2023.

The Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) (known as the “Habitats Regulations”) were originally drawn up to transpose the European Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the “Habitats Directive”) into UK legislation. Following the UK’s exit from the European Union, the Habitats Regulations – as amended by Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 – remain in force until such a time as they are superseded by new or updated domestic legislation.

The Habitats Regulations provide for the designation of both Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) in the UK, which previously formed part of the Natura 2000 network of protected areas across Europe and are now part of the UK’s “National Sites Network”. New National Sites may be designated under the Regulations.

The Regulations also prohibit certain actions relating to European Protected Species (EPS), which include *inter alia* Hazel Dormouse *Muscardinus avellanarius*, Great Crested Newt *Triturus cristatus*, European Otter *Lutra lutra* and all native species of bat.

Further information on SPAs, SACs and European Protected Species is provided in the relevant sub-sections of this Appendix.

Wildlife & Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 is the principal mechanism for the legislative protection of wildlife in Great Britain. Various amendments have occurred since the original enactment. Certain species of bird, animal and plant (including all of the European Protected Species listed above) are afforded protection under Schedules 1, 5 and 8 of the Act. Reference is made to the various Schedules and Parts of this Act (**Table A1.1**) in the section of this Appendix dealing with Legally Protected Species. The Act also contains measures for the protection of the countryside, National Parks, Sites of Special Scientific Interest (SSSIs) and public rights of way as well as preventing the establishment of invasive non-native species that may be detrimental to native wildlife.

Table A1.1: Relevant Schedules of the Wildlife & Countryside Act 1981 (as amended)

Schedule	Protected Species
Schedule 1 Part 1	Protects listed birds through special penalties at all times
Schedule 1 Part 2	Protects listed birds through special penalties during the close season
Schedule 5 Section 9.1 (killing/injuring)	Protects listed animals from intentional killing or injuring
Schedule 5 Section 9.1 (taking)	Protects listed animals from taking
Schedule 5 Section 9.2	Protects listed animals from being possessed or controlled (live or dead)
Schedule 5 Section 9.4a	Protects listed animals from intentional damage or destruction to any structure or place used for shelter or protection
Schedule 5 Section 9.4b	Protects listed animals from intentional disturbance while occupying a structure or place used for shelter or protection
Schedule 5 Section 9.5a	Protects listed animals from being sold, offered for sale or being held or transported for sale either live or dead, whole or part
Schedule 5 Section 9.5b	Protects listed animals from being published or advertised as being for sale
Schedule 8	Protects listed plants from: intentional picking, uprooting or destruction (Section 13 1a); selling, offering for sale, possessing or transporting for the purpose of sale (live or dead, part or derivative) (Section 13 2a); advertising (any of these) for buying or selling (Section 13 2b).
Schedule 9	Prohibits the release of species listed in the Schedule into the wild.
Schedule 9a	Allows environmental authorities to issue species control orders to landowners, obliging them to control/eradicate invasive and/or non-native species.

Further information on legally protected species, designated wildlife sites and invasive non-native species is provided in the relevant sub-sections of this Appendix.

Countryside & Rights of Way Act 2000

Many of the provisions of the Countryside and Rights of Way (CRoW) Act 2000 have been incorporated as amendments into the Wildlife and Countryside Act (1981) and some provisions have now been superseded by later legislation such as The Natural Environment and Rural Communities Act (2006).

The most relevant changes provided by the CRoW Act include the added protection given to SSSIs and other important sites for nature conservation. Importantly, under the Act it became a criminal offence to "recklessly disturb" Schedule 1 nesting birds and species protected under Schedule 5 of the Wildlife and Countryside Act. It also enabled heavier penalties on conviction of wildlife offences.

The Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities (NERC) Act 2006 was intended to raise the profile of biodiversity amongst all public authorities (including local authorities, and statutory undertakers) and to make biodiversity an integral part of policy and decision-making processes. The NERC Act also improved wildlife protection by amending the Wildlife and Countryside Act 1981.

Section 40 (S40) of the Act places a 'Biodiversity Duty' on all public bodies to have regard to the conservation of biodiversity when carrying out their normal functions. This includes giving consideration to the restoration and enhancement of species and habitats.

Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of Principal Importance for the conservation of biodiversity in England. This was published in 2007 and is commonly referred to as the "S41 list". Public authorities have a responsibility to give specific consideration to the S41 list when exercising their normal functions. For planning authorities, consideration for Species and Habitats of Principal Importance will be exercised through the planning and development control processes. Further information on Species and Habitats of Principal Importance is provided in the relevant sub-sections of this Appendix.

The Water Environment Regulations 2017

Currently, the overriding legislation relating to freshwater is the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. The Regulations set out objectives to deliver a better water environment based upon achieving a 'good status' for freshwater bodies. The concept of 'good status' is a more rigorous measure of environmental quality than previous measures, which now takes into account not just the chemical status but also the ecological health and the extent of artificial physical modification to rivers.

The Regulations are based upon the concept of protecting water through the management of river basin districts (RBDs) and require the implementation of River Basin Management Plans (RBMPs). Regulation 33 requires public bodies to 'have regard' to the RBMP when making planning decisions, for example through the granting of planning permission with appropriate planning conditions and/or obligations. These could require measures to be implemented (e.g. Sustainable Urban Drainage Systems (SUDS), grey water recycling etc.) or funds to be provided for habitat enhancement schemes.

The Regulations also affect planning policy through the implementation of Programmes of Measures for each river basin district. This involves bringing together funding from various sources and co-ordination of the activities of organisations with an interest in the use of land and water, including developers.

SITES DESIGNATED FOR THE CONSERVATION OF NATURE

There is a hierarchy of nature conservation sites which is based on the level of statutory (legal) protection and the administrative level of importance. Other features of nature conservation interest outside designated sites may also be a material consideration in the determination of planning applications.

Statutory Sites: International

Ramsar Sites, Special Areas of Conservation (SAC) and Special Protection Areas (SPA)

The Conservation of Habitats and Species Regulations 2017 (as amended) provide the primary legal basis for the protection of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) in the UK.

SACs are sites which support internationally important habitats and/or species listed as being of Community Importance in the Annexes of the European Habitats Directive 92/43/EEC. SPAs are sites which support internationally important numbers of bird species listed as being of Community Importance in the Annexes of the European Birds Directive 2009/147/EC. Following the UK's exit from the EU, these now form part of the "National Sites" network rather than the EU Natura 2000 network.

Ramsar sites are wetlands of international importance and although not covered under the Habitats Regulations they are, as a matter of national planning policy, subject to the same strict protection as SACs and SPAs. The majority of terrestrial Ramsar sites in England are also notified as SPAs and/or Sites of Special Scientific Interest (SSSIs).

To avoid confusion with the nationally designated sites described below, EPR refers to SACs and SPAs as 'International sites', given the reasons for their designation.

Any plan or project considered likely to affect an International site (SAC, SPA or Ramsar) must be subject to a Habitats Regulations Assessment (HRA), as set out under Regulation 63 (and Regulation 105 in respect of Land Use Plans) of the Habitats Regulations 2017 (as amended) and the National Planning Policy Framework (NPPF) 2023.

The local authority (or other 'competent authority') carries out the HRA, but the onus is on the developer to provide the necessary information to inform this process, usually in the form of a report.

Under the Habitats Regulations 2017 (as amended), the competent authority must determine in the first instance whether a proposed development is likely to have a significant effect on the SAC/SPA, either alone or in combination with other plans and projects. This stage of the HRA process is known as 'screening'.

If a likely significant effect cannot be precluded (screened out) on the basis of objective information, the competent authority must undertake an 'Appropriate Assessment' to fully assess these implications against the site's conservation objectives. A precautionary approach must be taken with respect to determining whether or not there would be a significant effect, and the appropriate nature conservation body (in most cases Natural England) should be consulted. Except in certain exceptional circumstances prescribed by the Regulations where there are imperative reasons of overriding public interest for allowing a development to proceed, the competent authority may not undertake or authorise the plan or project until they have established (based on the conclusions of the Appropriate Assessment) that the activity will not adversely affect the integrity of the SAC/SPA. This should be the case where no reasonable scientific doubt remains as to the absence of such effects.

Regulation 16A of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 sets out the management objectives of the National Site Network, which can be summarised as follows:

- to maintain or, where appropriate, restore habitats and species listed in Annexes I and II of the Habitats Directive within the UK's territory to a favourable conservation status (FCS); and

- contribute to ensuring, in their area of distribution, the survival and reproduction of wild birds and securing compliance with the overarching aims of the Wild Birds Directive.

The appropriate authorities must also have regard to:

- the importance of protected sites in meeting the above objectives, including breeding, moulting, staging and wintering areas for in the case of migratory bird species;
- their importance for the coherence of the national sites network; and
- the threats of degradation or destruction (including deterioration and disturbance of protected features) on SPAs and SACs.

Government guidance¹ also states that competent authorities have a duty to help protect, conserve and restore the designated features of SACs and SPAs when carrying out their statutory work, including taking decisions that might affect a site. They also have a duty to consider how they can help to prevent the deterioration of the site's habitats from human activity or natural changes, including habitats that support designated species, and prevent significant disturbance of the site's designated species from human activity or natural changes.

Competent authorities include (but are not limited to) local planning authorities, councillors, planning committee members and statutory agencies such as Natural England.

Statutory Sites: National

Nationally important sites include Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs). A development proposal that is likely to affect a nationally important site will be subject to special scrutiny by the local planning authority and Natural England. Certain operations may be permitted. Any potentially damaging operations that could have an adverse effect directly or indirectly on the special interest of the site will not be permitted unless the reasons for the development clearly outweigh the nature conservation and/or geological value of the site itself and the national policy to safeguard such sites, as set out in Section 15 of the National Planning Policy Framework (NPPF).

Sites of Special Scientific Interest

The Wildlife and Countryside Act 1981 (as amended) and the CROW Act 2000 provide the primary legal basis for the protection of Sites of Special Scientific Interest (SSSIs). These sites have been designated to capture the best examples of England's flora, fauna, geological or physiographical diversity.

Public bodies have a duty to take reasonable steps to conserve and enhance the special features of sites of special scientific interest (SSSIs) when carrying out their statutory duties and giving others permission for works, such as reviewing planning applications.

¹ <https://www.gov.uk/guidance/duty-to-protect-protect-protect-and-restore-european-sites>

National Nature Reserves

National Nature Reserves (NNRs) are declared under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981, as amended by the Environmental Protection Act 1990. They are managed to conserve their habitats or to provide special opportunities for scientific study of the habitats communities and species represented within them. NNRs represent the very best parts of England's SSSIs. The majority of NNRs also have European nature conservation designations.

Statutory Sites: Regional/Local

Local Nature Reserves

Local Nature Reserves (LNRs) are declared by local authorities under the National Parks and Access to the Countryside Act 1949 as living green spaces in towns, cities, villages and countryside. They provide opportunities for research and education, or for simply enjoying and having contact with nature. LNRs are usually protected from development through local planning documents which may be supplemented by local by-laws.

Non-Statutory Sites

Local Wildlife Sites

Local planning authorities may designate non-statutory sites for their nature conservation value based on important, distinctive and threatened habitats and species within a national, regional and local context. These sites are not legally protected but are given some protection through the planning system. These sites may be declared as 'County Wildlife Sites', 'Sites of Importance for Nature Conservation' (SINCs), or 'Sites of Nature Conservation Importance' (SNCIs) in local and structure plans. Non-statutory sites are a material consideration when planning applications are being determined. The precise amount of weight to be attached, however, will take into account the position of the site in the hierarchy of sites as set out above. Further information is typically provided in local level planning policy.

Nature Conservation in Areas Outside Designated Sites

Various other features exist outside designated sites that are important for the conservation of nature and which are a material consideration in the planning system.

Habitats of Principal Importance in England

Fifty-six habitat types have been identified as Habitats of Principal Importance for the conservation of biodiversity in England under Section 41 of the NERC Act 2006. Although these habitats are not legally protected, the NPPF, Government Circular 06/05, good practice guidance and the NERC Act place a clear responsibility on planning authorities to further the conservation of these habitats. They can be a material consideration in planning decisions, and so developers are advised to take reasonable measures to avoid or mitigate impacts to prevent their net loss and to enhance them where possible. Additional guidance to developers is typically provided in local level planning policy.

The S41 list also includes species as explained below under 'Species of Principal Importance in England'.

Networks of Natural Habitats

Networks of natural habitats link sites of biodiversity importance and provide routes or stepping stones for the migration, dispersal and genetic exchange of species in the wider environment. Examples include rivers with their banks, traditional field boundary systems (such as hedgerows), ponds and small woods. Local planning authorities are encouraged through the NPPF to maintain networks by avoiding or repairing the fragmentation and isolation of natural habitats through planning, policies and development control.

Hedgerows

Hedgerows can act as wildlife corridors that are essential for migration, dispersal and genetic exchange of wild species. Hedgerows that qualify as a Habitat of Principal Importance under S41 of the NERC Act 2006 are a material consideration in the planning system.

Under the Hedgerow Regulations 1997, it is an offence to remove a hedgerow classed as 'important' under the criteria set out by the Regulations without submitting a notice to the Local Planning Authority and waiting for their decision. The Regulations are aimed at countryside hedges and do not apply to hedges around private dwellings or where planning permission has been granted for a project that includes hedge removal. Hedgerows that satisfy wildlife, archaeological, historical or landscape criteria qualify as 'important' under the Regulations. If a hedgerow is not important, the Local Planning Authority may not prevent its removal; however, Local Planning Authorities are required under the Regulations to protect and retain important hedgerows unless satisfied that the circumstances justify their removal.

Tree Preservation Orders

Tree Preservation Orders (TPOs) may be declared under the Town and Country Planning Act 1990 and the Town and Country Planning (Trees) Regulations 1999 to protect individual trees and woodlands from development and cutting. TPOs are primarily put in place to preserve amenity or for landscape conservation reasons. The importance of trees as wildlife habitat may be taken into account, but alone is not sufficient to warrant a TPO. For this reason, TPOs do not fit comfortably under the remit of nature conservation and are generally dealt with by an arboricultural consultant rather than an ecologist. Further guidance on TPOs in relation to development is available from the Department for Communities and Local Government.

Ancient Woodland & Veteran Trees

Ancient woodlands are defined as areas continuously wooded since at least 1600 AD. Even an ancient wood which has been replanted may still have remnants of ancient woodland wildlife and historical features and has potential to be restored. Ancient woodland is not a statutory designation and does not provide legal protection, but local authorities are advised under the NPPF and National Planning Practice Guidance (NPPG) not to grant planning permission for any development that would result in the loss or deterioration of ancient woodland, ancient trees or veteran trees unless there are 'wholly exceptional reasons' and 'a suitable compensation strategy in place'. Local Planning Authorities must take into account Natural England and the Forestry Commission's *Standing Advice for Ancient Woodland and Veteran Trees*, available on the www.gov.uk website.

Surface & Ground Waters

Surface waters (including flowing and standing water) and ground water can directly and indirectly impact upon the conservation of nature.

Guidance on pollution prevention is hosted on the Government's website and focuses on regulatory requirements. This covers topics including the prevention of pollution if you are a business, managing business and commercial waste, oil storage, working on or near water, and managing water on land. Careful planning and the application of these guidelines can help reduce the risk of construction and maintenance work causing pollution to surface and ground waters. Some activities with the potential to impact watercourses or groundwater may require consent under the Water Resources Act 1991.

Water Resources Act (WRA) 1991

Under the WRA there is strict regulation of discharges (including sediment, chemicals, nutrients) to rivers, lakes, estuaries and groundwaters. It also aims to ensure that polluters cover the costs associated with pollution incidents.

SPECIES PROTECTION

Legally Protected Species

The species listed in the following subsections are protected by law in England. When preparing a planning application, it is essential to determine the presence or likely absence of legally protected species and the extent to which they may be affected by a proposed development. This can best be achieved by undertaking surveys early in the planning process. Avoidance and/or mitigation measures may be required to address any predicted impacts upon protected species and may necessitate a licence. The Government website offers standing advice from Natural England and DEFRA which can be applied to planning applications that affect protected species.

Bats

There are 18 species of bat in the UK, seven of which are Species of Principal Importance in England. All bats and bat roosts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Bats are also a European Protected Species protected under the Habitats Regulations 2017 (as amended). It is an offence to:

- Intentionally or deliberately kill, injure or capture bats;
- Intentionally, deliberately or recklessly disturb bats in such a way as to be likely to significantly affect the ability of any significant group of bats to survive, breed, or rear or nurture their young or the local distribution of or abundance of a species of bat;
- Intentionally, or recklessly damage, destroy or obstruct any place used for shelter or protection (i.e. bat roosts) or intentionally or recklessly disturb a bat whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a bat; and
- Possess, sell or transport a bat, or anything derived from it.

Development proposals affecting bats or their roosts require a European Protected Species mitigation licence from Natural England.

Great Crested Newt

The Great Crested Newt *Triturus cristatus* is a Species of Principal Importance in England. It is legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and is afforded

significant further protection as a European Protected Species under the Habitats Regulations 2017 (as amended). Collectively, this legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture Great Crested Newts;
- Intentionally, deliberately or recklessly disturb Great Crested Newts in such a way as to be likely to significantly affect the ability of any significant group of Newts to survive, breed, or rear or nurture their young or the local distribution of or abundance the species;
- Intentionally or recklessly damage, destroy or obstruct any place used by Great Crested Newts for shelter or protection, or intentionally or recklessly disturb a Great Crested Newt whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a Great Crested Newt; and
- Possess, sell or transport a Great Crested Newt, or anything derived from it.

Development proposals affecting the Great Crested Newt require a European Protected Species mitigation licence from Natural England.

Intentional or reckless behaviour leading to an offence being committed as detailed above may result in maximum penalties of:

- Up to £5,000 fine per offence committed;
- A custodial sentence of up to six months instead of, or in addition to, a fine; and/or
- Items of equipment involved in committing the offence may be seized and detained.

In addition to the above penalties, it is likely that any EPS mitigation licence obtained for a site will be revoked whilst any wildlife offence is investigated. This will lead to immediate temporary and, depending on investigation outcomes, possible permanent restrictions on site works, as well as associated cost.

Hazel Dormouse

The Hazel Dormouse *Muscardinus avellanarius* is a Species of Principal Importance in England. It is legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and is afforded significant further protection as a European Protected Species under the Habitats Regulations 2017 (as amended). Collectively, this legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture Dormice;
- Intentionally, deliberately or recklessly disturb Dormice in such a way as to be likely to significantly affect the ability of any significant group of Dormice to survive, breed, or rear or nurture their young or the local distribution of or abundance of the species;
- Intentionally or recklessly damage, destroy or obstruct access to places used by Dormice for shelter or protection (whether occupied or not) or intentionally or recklessly disturb a Dormouse whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a Dormouse;
- Possess or transport a Dormouse (or any part thereof) unless under licence; and
- Sell or exchange Dormice.

Development proposals affecting the Dormouse require a European Protected Species mitigation licence from Natural England.

European Otter

The European Otter *Lutra lutra* is a Species of Principal Importance in England. It is legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and is afforded significant further protection as a European Protected Species under the Habitats Regulations 2017 (as amended). Collectively, this legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture Otters;
- Intentionally, deliberately or recklessly disturb Otters in such a way as to be likely to significantly affect the ability of any significant group of Otters to survive, breed, or rear or nurture their young or the local distribution of or abundance of Otters;
- Intentionally or recklessly damage, destroy or obstruct access to places used by Otters for shelter or protection (whether they occupied or not) or intentionally or recklessly disturb an Otter whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of an Otter;
- Possess or transport an Otter (or any part thereof) unless under licence; and
- Sell or exchange Otters.

Development proposals affecting the Otter require a European Protected Species licence from Natural England.

Eurasian Beaver

The Eurasian Beaver *Castor fiber* is a European Protected Species under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). As a result of this protection, it is considered an offence to:

- Deliberately disturb a Beaver - this includes any action likely to impair their ability to survive, breed or rear their young
- Deliberately injure, capture or kill a Beaver;
- Damage or destroy the breeding site or resting place of a Beaver;
- Possess, control or transport a Beaver; and
- [offer to] Sell or exchange Beavers.

This applies whether the Beaver is alive or dead and includes Beaver parts and derivatives.

Development proposals affecting the Eurasian Beaver require a European Protected Species licence from Natural England.

Where an offence is committed the offender could be sentenced to:

- Up to 6 months in prison, and/or;
- An unlimited fine.

The Wildlife and Countryside Act 1981 (as amended) also prohibits the release of Beavers into the wild unless under licence, and makes it an offence to use any trap or snare for the purpose of killing, taking, restraining or injuring Beavers.

Reptiles

All four of the widespread British species of reptile, namely the Common Lizard *Zootoca vivipara*, Slow-Worm *Anguis fragilis*, Grass Snake *Natrix helvetica* (previously *Natrix natrix*) and Adder *Vipera berus*, are Species of Principal Importance in England. They are protected under Schedule 5 (Sections 9.1, 9.5a, 9.5b) of the Wildlife & Countryside Act 1981 (as amended) from intentional killing, injury and trade. The habitat of the four widespread reptiles is not legally protected; however the replacement of habitat lost through development may be required through the planning system. Mitigation for these species is not subject to licensing by Natural England but should nonetheless be planned to minimise disturbance and potential project delays.

The Smooth Snake *Coronella austriaca* and the Sand Lizard *Lacerta agilis* are the rarest reptile species in Britain. In addition to the protection that is afforded to the widespread species of reptile listed above, these species are protected further under Schedule 5 (Sections 9.4b and 9.4c) of the Wildlife and Countryside Act 1981 (as amended). They are also European Protected Species protected under the Habitats Regulations 2017 (as amended). This legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture Sand Lizards or Smooth Snakes;
- Intentionally, deliberately or recklessly disturb Sand Lizards or Smooth Snakes in such a way as to be likely to significantly affect the ability of any significant group of Sand Lizards or Smooth Snakes to survive, breed, or rear or nurture their young or the local distribution or abundance of either species;
- Intentionally or recklessly damage, destroy or obstruct any place used by Sand Lizards or Smooth Snakes for shelter or protection, or intentionally or recklessly disturb a Sand Lizard or Smooth Snake whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a Sand Lizard or Smooth Snake;
- Keep, sell, or exchange Sand Lizards or Smooth Snakes or their eggs; and
- Deliberately take or destroy their eggs.

Development proposals affecting Smooth Snake or Sand Lizard require a European Protected Species mitigation licence from Natural England.

Water Vole

The Water Vole *Arvicola terrestris* is a Species of Principal Importance in England. The legal protection for Water Voles was increased in 2008 to fully cover the species under Section 5 of the Wildlife and Countryside Act 1981 (as amended). The legislation makes it an offence to:

- Intentionally or deliberately (but not recklessly) kill, injure or take Water Voles;

- Intentionally, deliberately or recklessly damage, destroy or obstruct access to any structure or place used by Water Voles for shelter or protection;
- Intentionally, deliberately or recklessly disturb Water Voles whilst they occupy a structure or place used for that purpose;
- Sell Water Voles or offer or expose for sale or transport for sale; and
- Possess or control live or dead Water Voles or derivatives.

Developers who wish to maintain, build on or alter areas used by Water Voles must ensure that unnecessary damage is avoided and all reasonable steps are taken to minimise impacts on Water Voles and their burrows. The Wildlife and Countryside Act provides a defence against the offences listed above, provided the action is the incidental result of an otherwise lawful operation and could not reasonably have been avoided.

A licence to displace Water Voles must be obtained from Natural England before conducting any activities involving displacement operations (this is different to a conservation licence, which is required for survey methods that involve disturbing Water Voles or their burrows, or capturing them). To obtain a displacement licence, it is necessary to demonstrate that the activity/activities will result in a conservation benefit for Water Voles.

Birds

49 species of bird are listed as Species of Principal Importance in England. All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), making it an offence, with certain exceptions (e.g. game birds), to intentionally kill, injure or take any wild bird and to take, damage or destroy their nests or eggs.

Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) affords extra protection for certain species and applies harsher penalties for offences. Any intentional or reckless disturbance of a Schedule 1 bird, whilst it is nesting or rearing dependent young, constitutes an offence.

Regulation 10 of the Conservation of Habitats and Species Regulations 2017 (as amended) requires appropriate authorities and conservation bodies, in the exercise of their functions, to take such steps that they consider appropriate in order to secure “*the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat (...)*”.

European Badger

The Protection of Badgers Act 1992 offers considerable protection to both Badgers and Badger setts. This legislation was enacted to protect the European Badger *Meles meles* against baiting and not as a means of species recovery as it is common in England. It is an offence to cruelly treat, kill or take Badgers, but it is also illegal to intentionally or recklessly damage or disturb a Badger sett while it indicates signs of current use by a Badger.

The Government website contains information to help developers and their proponents avoid sett disturbance and to identify setts that are in current use. It is important to maintain adequate foraging territory in development proposals affecting Badgers as the destruction or severance of large areas of foraging territory could also be taken to include habitat loss. Licences to disturb Badgers and their setts

in respect of development may be issued by Natural England provided provisions are made to minimise disturbance.

Wild Mammals

All wild mammals are protected against cruelty under the Wild Mammals (Protection) Act 1996, which makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

White-Clawed Crayfish

The White-Clawed Crayfish *Austropotamobius pallipes* is a Species of Principal Importance in England. Outside designated sites (e.g. SACs), the White-Clawed Crayfish receives limited protection under Schedule 5 (Sections 9.1, 9.5a and 9.5b) of the Wildlife and Countryside Act 1981 (as amended), the Habitats Regulations 2017 (as amended) and the Salmon and Freshwater Fisheries Act 1975. This legislation does not provide strict protection of individual crayfish or their habitats but it does prevent prohibit the capture of this species without a licence. A conservation licence must therefore be obtained from Natural England before conducting any mitigation involving the capture and handling of this species.

European Eel

The Eels Regulations 2009 (as amended in 2011) aim to combat the population decline of the European eel *Anguilla anguilla* through protection of migration routes and controls on the numbers of eels allowed to be taken. In order to protect migration routes, any structures which may prevent upstream or downstream migration of eels must be reported to the Environment Agency. Eel passages must be constructed where needed and maintained in a good condition.

Freshwater Fish

The Salmon and Freshwater Fisheries Act 1975 protects freshwater fish, particularly salmon and trout. It prevents the destruction of spawning grounds and the obstruction of migratory passages through the building of weirs, dams etc.

Licences for Development

Licences are required to permit activities prohibited under wildlife legislation, namely the disturbance or capture of protected species or damage to their habitats. Natural England is the licensing authority in England. Licences are only issued for certain purposes, which are set out in the legislation, and only where there is a valid justification. The licences most relevant to development scenarios are discussed below.

European Protected Species Mitigation Licences

A European Protected Species mitigation licence (EPSML) is required from Natural England to undertake any development that is reasonably likely to result in an offence in respect of a European Protected Species protected under Schedule 2 of the Habitats Regulations 2017 (as amended); including *inter alia* all species of bats, Hazel Dormouse, Great Crested Newt, European Otter and Eurasian Beaver. Natural England must be satisfied that the following three tests are satisfied before it will issue a licence covering a European Protected Species:

1. The proposal is necessary to preserve public health or public safety, or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
2. There is no satisfactory alternative; and
3. The proposal will have no detrimental effect to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Other Protected Species Mitigation Licences

Natural England can issue mitigation licences for reasons of “overriding public interest” in respect of animal and plant species listed on Schedules 5, 6 and 8 of the Wildlife and Countryside Act 1981 (as amended), excluding birds and European Protected Species (as these have separate licensing systems). In the context of development, the most relevant species are likely to include Adder, Grass Snake, Common Lizard, Slow-worm and several species of plant.

Applicants must demonstrate that the licence is for the purpose of overriding public interest, and also that there are “no other satisfactory solutions”. In practice, therefore, this type of licence is likely to be difficult to obtain for most types of development.

Conservation Licences

In the context of development, conservation licences are normally only relevant to mitigation involving the capture of Water Voles or White-Clawed Crayfish. Conservation licences are granted to permit the trapping and translocation of these species on the condition that the development activity is properly planned and executed and thereby contributes to the conservation of the population of the species.

Badger Licences

Licences to disturb Badgers and their setts in respect of development may be issued by Natural England, provided provisions are made to minimise disturbance.

Species of Principal Importance in England

943 species have been identified as being of Principal Importance for the conservation of biodiversity in England under Section 41 (S41) of the NERC Act 2006. The S41 list includes species found in England which have been identified as requiring action under the now superseded UK Biodiversity Action Plan 2007 (plus the Hen Harrier). While many of these species may not be legally protected (some are protected under the legislation described above), there is a clear responsibility on local planning authorities to further their conservation. These species can be a material consideration in development control decisions and so developers are advised to take reasonable measures to avoid or mitigate impacts to prevent the net loss of these species, and to enhance their habitats where possible. Additional guidance to developers is typically provided in local level planning policies.

Invasive Non-Native Species

There are a number of species not ordinarily resident in the UK, such as Japanese Knotweed. Those which pose a significant threat, if uncontrolled, to our ecology and economy are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). For an offence to be committed, a species must be released or allowed to escape into the wild. For example, if a plant listed on Schedule 9 is not

adequately controlled by a land owner, once they are aware that it is present, and the species is allowed to spread into adjoining areas, then this could constitute an offence.

Japanese Knotweed is also classed as 'controlled waste' under the Environment Protection Act 1990 (as amended) and if taken off site it must be disposed of safely at a licensed landfill site. Soil containing rhizome material should also be regarded as contaminated and treated accordingly.

Species Control Orders

A new schedule 9A was inserted into the Wildlife and Countryside Act 1981 (as amended) by Sections 23 to 25 of the Infrastructure Act 2015. This gives environmental authorities (in England the Secretary of State, Environment Agency, Natural England and the Forestry Commission) the power to offer 'species control agreements' to landowners in respect of invasive and/or non-native species, such as Japanese Knotweed. If the landowner does not comply with a species control agreement, or refuses to enter into one, the environmental authority may issue a 'species control order', requiring the owner to eradicate or control the species, or to allow the environmental authority access to carry out these operations themselves.

If the owner does not comply with the species control order, the maximum penalty if convicted is a fine of up to £40,000 and/or imprisonment for up to 51 weeks. The environmental authority can also recover costs for carrying out the necessary work themselves.

PLANNING POLICY & GUIDANCE

This section set out the main planning policy and government guidance that relates to the conservation of nature at all levels of government.

National Level

National Planning Policy Framework 2023

The National Planning Policy Framework (NPPF) 2023 sets out the Government's planning policies for England and how these should be applied in local-level policy and decision making. The NPPF has a clear "presumption in favour of sustainable development" (paragraph 11), with economic, social and environmental objectives. This presumption does not apply where a plan or project has failed the 'appropriate assessment' test under the Habitats Regulations (paragraph 182).

Section 15 of the NPPF provides guidance on conserving and enhancing the natural environment through the planning system, as summarised below.

Firstly, planning policies and decisions should contribute to and enhance the natural and local environment by applying the following key principles:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; and
- preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.

Section 15 also requires planning policies and decisions to limit the impact of artificial light pollution on nature conservation.

Secondly, when determining planning applications, local planning authorities should apply the following key principles:

- if significant harm resulting from a development cannot be avoided, adequately mitigated or (as a last resort) compensated for, then planning permission should be refused;
- proposed development that is likely to have an adverse effect on a SSSI (either individually or in combination with other developments) should normally be refused;
- planning permission should normally be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and ancient or veteran trees, unless there are 'wholly exceptional reasons' and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported, while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

In the case of SSSIs and irreplaceable habitats, exceptions may be made if it can be clearly demonstrated that the benefits of the development, in that location, clearly outweigh the costs in terms of loss or adverse impacts.

Section 15 specifies that listed or proposed Ramsar sites, potential European sites, and sites identified or required as compensatory measures for adverse effects on designated/listed or potential/proposed European and Ramsar sites should be given the same protection as designated European sites.

Section 15 includes the following text on air quality:

- Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas;
- Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications; and
- Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.

The NPPF also sets out principles for plan-making, including the allocation of land with the least environmental or amenity value, and taking a strategic approach to maintaining and enhancing networks of habitats and green infrastructure by identifying, mapping and safeguarding components of local wildlife-rich habitats, wider ecological networks, wildlife corridors and stepping stones, and those areas identified by national and local partnerships for habitat management, enhancement, restoration or creation.

Government Circular 06/05: Biodiversity and Geological Conservation

The Government produced Circular 06/05 to provide guidance on the application of the law to the conservation of nature. Although the document is in the process of being updated, Paragraphs 98 and 99 remain relevant as they set out the following principles and obligations:

- The presence of protected species is a material consideration when determining a development proposal;
- Local authorities should consult with Natural England before granting permission, and consider imposing planning conditions or obligations to secure the long-term protection of the species;
- The presence of protected species, and the extent to which they may be affected by the proposed development, must be established before permission is granted;
- Given the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present and affected by the development.

MHCLG Planning Practice Guidance

Revised and updated Planning Practice Guidance (PPG) was launched by the Department for Communities and Local Government (now the Ministry of Housing, Communities and Local Government, MHCLG) as a web-based tool in March 2014 to accompany the NPPF. The webpages are set out in a Q&A format. The PPG consolidates and supersedes existing guidance on a range of planning-related topics, clarifies some of the statements made in the NPPF, and provides links to relevant legislation and other sources of advice.

The Guidance outlines a number of important principles in relation to nature conservation and biodiversity, including the need to integrate biodiversity into all stages of the planning process and to consider opportunities to enhance biodiversity and contribute to the Government's commitments and targets set out in *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*.

The guidance also requires that "an ecological survey will be necessary in advance of a planning application if the type and location of development are such that the impact on biodiversity may be significant and existing information is lacking or inadequate", and recommends that "local planning authorities should only require ecological surveys where clearly justified, for example if they consider there is a reasonable likelihood of a protected species being present and affected by development."

Other guidance

In addition to the Planning Practice Guidance, various other forms of guidance and standards are available in relation to biodiversity and the development process. Of particular note is *British Standard BS42020:2013 Biodiversity – Code of practice for planning and development*, published in August 2013,

which replaces *Planning to Halt the Loss of Biodiversity (PAS 2010): Biodiversity conservation standards for planning in the United Kingdom*.

This document is designed to complement the NPPF and is aimed at organisations concerned with ecological issues throughout the planning process, including local authorities, developers, planners and ecological consultants. It sets out step-by-step recommendations on how to incorporate biodiversity considerations at all stages of the planning process, with a focus on the provision of consistent, high quality and appropriate ecological information, effective decision making, and high standards of professional conduct and competence.

Regional Level

Regional plans (such as the South East Plan Regional Spatial Strategy) have been revoked, but some specific policies have been saved. The only policy saved from the South East Plan is Policy NRM6, which relates to the Thames Basin Heaths Special Protection Area (TBH SPA).

Local Level

The Eastleigh Borough Local Plan (2016-2036) (Eastleigh Borough Council, 2022) sets out policy for local development, with the following policies of relevance to nature conservation and biodiversity

Strategic Policy S1: Delivering Sustainable Development

1. To be sustainable, new development in the Borough should:
 - a. meet community needs without compromising the identity of the Borough or its individual settlements, or the ability of future generations to meet their own needs;
 - b. enhance social equality by ensuring equal and easy access to a range of community facilities and services and by promoting the development of employment, education and skills training opportunities;
 - c. maintain and help to grow a high-performing local economy that benefits the Borough, south Hampshire and the wider economy, without adverse impact on south Hampshire's city, town and other centres, the quality of the local environment or local transport networks;
 - d. have regard to the potential impacts of climate change, and the need to limit greenhouse Eastleigh Borough Local Plan 2016-2036 27 Eastleigh Borough Local Plan 2016-2036 gas emissions including through carbon sequestration and by promoting measures to design buildings and spaces which are adaptable to predicted climate change, and restrict development in areas at risk from flooding, minimise energy use and encourage the generation of renewable energy, and by minimising emissions from motorised transport, industrial activity and domestic uses;
 - e. minimise the need to travel longer distances and, where travel is necessary, prioritise more sustainable forms of transport, such as active travel, other alternatives to car use, or a combination of active travel and other alternatives to car use;
 - f. avoid impacts on the Hamble and Itchen catchments and associated flora and fauna species by preserving water quality and flows from development and safeguarding potential yield of local water resources used for public water supplies having regard to the impacts of abstraction;
 - g. seek opportunities to optimise density of new development and redevelopments;

- h. use resources wisely and minimise the generation of waste in the construction, occupation and use of buildings;
 - i. maintain local environmental quality, including avoiding damage to, and where possible enhancing, the existing valued urban and rural environments in the Borough and heritage assets;
 - j. have regard to the purposes¹² of the South Downs National Park, including regarding its status as an International Dark Night Skies reserve; and
 - k. maintain, enhance, extend and connect the natural habitats within and landscape value of the Borough, extending natural habitats into new and existing development to achieve an environmental net gain.
2. Applicants are encouraged to undertake pre-application consultation with the relevant statutory and non-statutory consultees.
 3. When considering development proposals the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. It will always work proactively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.
 4. Planning applications that accord with the policies in the Local Plan will be approved without delay, unless material considerations indicate otherwise. Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision then the Council will grant permission unless material considerations indicate otherwise, taking into account whether:
 - a. any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole; or
 - b. where specific policies in that Framework or other international or national legislation indicate that development should be restricted.

Strategic Policy S9: Green Infrastructure

1. Through new development and other initiatives the Borough Council will seek to achieve the provision, retention and/or enhancement of the following forms of multi-functional green infrastructure, including provision of:
 - a. landscape scale strategic links across the Borough boundary, to and between the Borough's settlements, the countryside, the coast, and the major areas of open space including the country parks (see strategic policy S12);
 - b. interlinked publicly accessible open space through new and existing development including for example formal sports facilities and informal amenity spaces and cemeteries (see policies DM32-DM34, Chapter 5 and detailed proposals in Chapter 6);
25 www.eastleigh.gov.uk/biodiversity 48 Eastleigh Borough Local Plan 2016-2036 April 2022
 - c. green infrastructure incorporated into all new development with multifunctional spaces connected by primary, secondary and tertiary green links;

- d. interconnected urban green infrastructure within the fine grain of existing and new development including green, cycle ways, paths and linkages between community facilities and open spaces to link community facilities;
- e. green stepping stones such as street trees, green roofs and walls, pocket parks and urban copses (see policy DM1, Chapter 5);
- f. connected habitats linking the network of designated sites and existing priority habitats, taking account of the Hampshire ecological network map (see policy DM11, Chapter 5);
- g. incorporation of historic buildings and landscapes, including historic parks and gardens within the wider Green Infrastructure to protect their setting (see policy DM12, Chapter 5); and
- h. opportunities for local food growing including allotments, community orchards and farms (see policies DM32 to DM34, Chapter 5 and detailed proposals in Chapter 6).

Policy DM1, General Criteria for New Development

1. All new development should (as relevant):
 - a. a. not have an unacceptable impact on, and where possible should enhance:
 - i. residential amenities of both new and existing residents; the character and appearance of urban areas, the countryside and the coast;
 - ii. biodiversity (avoiding significant adverse impacts); and iii. the significance of heritage assets;
 - b. make efficient use of the site, maximise opportunities to increase density and have regard to potential development opportunities on adjoining land;
 - c. take full and proper account of the context of the site including the character, appearance and land uses of the locality or neighbourhood, and be compatible with adjoining uses and be well integrated with these in terms of mass, scale, materials, layout, density, design and siting, both in itself and in relation to adjoining buildings, spaces and views. Where adjoining development is poor in urban design terms, new development should contribute to improving the character of the area;
 - d. not involve the loss of or damage to trees, woodlands, hedgerows, ponds, priority habitats or other landscape features of value to the character of the area, for appearance or biodiversity unless they can be replaced with features of equivalent or enhanced value, (recognising that some species and habitats may be irreplaceable);
 - e. include a landscape scheme covering the design and layout of external space;
 - f. protect and enhance public rights of way and National Trails and provide fully connected green infrastructure that interlaces the development and connects into the wider network;

- g. provide satisfactory management arrangements for all landscape, green infrastructure and biodiversity enhancement;
- h. incorporate provision for people with disabilities and create accessible communities that cater for all;
- i. incorporate design measures to inhibit criminal and anti-social behaviour;
- j. incorporate provision for on-site waste management; and
- k. include provision for public art associated with new large scale development in accordance with the Council's adopted Public Art Strategy.

Policy DM3, Adaptation to climate change

1. All development should be designed to adapt to the predicted climate change impacts for the Borough.
 - a. To reduce the potential impacts of surface water flooding, sustainable drainage systems need to be implemented as part of an integrated SuDS strategy for the site in accordance with policy DM6 (Sustainable surface water management and watercourse management) and as part of the landscape framework for the site including green open space and green roofs where appropriate.
 - b. New development should have a cooling strategy which can include:
 - i. cooling through generous green infrastructure and trees
 - ii. areas of shade
 - iii. water cooling
 - iv. building design and orientation to reduce overheating
 - v. 'cool roofs' or green roofs and green walls
 - vi. porous cool pavements
 - c. To adapt to water stress, new development should be designed to reduce demand. Measures can include:
 - i. reduced residential mains water consumption (as per policy DM2)
 - ii. water efficient appliances, fittings and leak detection devices for non-residential and non C3 use class residential development
 - iii. rainwater harvesting and grey water recycling
 - iv. drought resistant landscape design and planting

Policy DM8, Pollution

1. Development will not be permitted if it is likely to cause loss of amenity or impact on public health or other unacceptable environmental impacts through:
 - a. air pollution (including odours or particulate emissions);
 - b. pollution of surface, underground, coastal waters or other watercourses;
 - c. noise or vibration;
 - d. light intrusion, both generally and with respect to the South Downs National Park's status as an International Dark Night Skies reserve; or
 - e. land contamination.
2. Development susceptible to particular forms of pollution will not be permitted:
 - a. where it will be adversely affected by such pollution, unless measures can be taken that adequately mitigate the polluting effects; or
 - b. where it would inhibit existing economic or other activities giving rise to acceptable polluting effects.
3. Where a development site is known or suspected to be contaminated, before the site is developed the Borough Council will require the contamination to be remediated to a standard where as a minimum it cannot be defined as 'contaminated land' under Part IIA of the Environmental Protection Act 1990.

Policy DM11, Nature conservation

General Approach

1. The Council will work with statutory and voluntary agencies and developers, and will determine planning applications, to:
 - a. protect, conserve and enhance all:
 - i. international, national and local nature conservation designations; and
 - ii. networks of natural habitats and features, including the Local Ecological Network, Priority Biodiversity Areas and Priority Biodiversity Links, watercourses, wetland complexes, woodland trees, and trees and hedgerows important to biodiversity and local character;
 - iii. and facilitate their adaptation to climate change wherever possible;
 - b. assist in achieving national, county and local biodiversity targets as set out in Biodiversity Action Plans (BAPs);
 - c. seek a net gain of biodiversity on all development sites (including sites for redevelopment) through the protection, enhancement and connection of existing and

provision of new habitats and features of nature conservation interest compatible with the native biodiversity characteristics of the Borough, having regard to local geodiversity and soils; and

- d. contribute to major elements of the PfSH Green Infrastructure Strategy and other strategies for the provision and enhancement of multifunctional green infrastructure including green routes, ecological networks and biodiversity enhancements (see strategic policy S9).

International Designations

2. Development which is likely (either individually or in combination with other developments) to adversely affect the integrity of an international or European nature conservation site will not be permitted subject only to imperative reasons of overriding public interest and securing any necessary compensatory measures in the absence of alternative solutions. A 'project level' Habitat Regulations Assessment will be required where there are likely significant effects or uncertainty. Any mitigation measures required to ensure no adverse impact must be implemented at the appropriate time.
3. The Council will work with PfSH, Natural England, the Environment Agency and other wildlife organisations to develop and implement with developers a strategic approach to the protection and enhancement of international and European sites from the direct and indirect effects of development. Within Eastleigh Borough this will include:
 - a. implementing:
 - i. the Solent Recreation Mitigation Strategy (requiring contributions from residential developments within 5.6 kilometres of the Solent Special Protection Area to the Strategy); and
 - ii. the interim and any future New Forest Recreation Mitigation Strategy if required; or alternative agreed site specific measures to address recreational disturbance;
 - b. preserving the water quality and flows within the Itchen and Hamble, Southampton Water and Solent;
 - c. protecting the River Itchen SAC, in particular the maintenance and where appropriate restoration of habitats and qualifying species to favourable conservation status (as defined by article 1 of the Habitats Directive); and
 - d. seek contributions towards measures set out in the Southern Damselfly Conservation Strategy (or other strategy) specifically to deliver biodiversity net gain.

National and Local Designations

4. Development will not be permitted if it is likely (either individually or in combination with other developments) to have a direct or indirect adverse effect on a Site of Special Scientific Interest (SSSI), Site of Importance for Nature Conservation (SINC) or Local Nature Reserve (LNR) as shown on the policies map (or on a more recent plan provided by the Hampshire Biodiversity Information Centre) unless it can be demonstrated that:

- a. there are no alternative solutions;
 - b. the adverse effects are unavoidable;
 - c. measures are taken to mitigate or, as a last resort, compensate for the adverse effects;
 - d. there is an overall biodiversity net gain; and
 - e. if there are any residual adverse effects which cannot be avoided, mitigated or compensated, the benefits of the development must clearly outweigh the adverse effects on the nature conservation value of the site and any broader impacts on national and local designations. Priority habitats, protected and priority species and the local ecological network
5. Development will not be permitted if it is likely (either individually or in combination with other developments) to have a direct or indirect adverse effect on priority habitats, protected or priority species, or on the local ecological network unless it can be demonstrated that:
- a. there are no alternative solutions;
 - b. the adverse effects are unavoidable;
 - c. measures are taken to mitigate or, as a last resort, compensate for the adverse effects;
 - d. there is an overall biodiversity net gain; and
 - e. if there are any residual adverse effects, the benefits of the development clearly outweigh the adverse effects on priority habitats, priority and protected species, and the local ecological network. Irreplaceable habitats
6. Development will not be permitted if it results in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees), unless there are wholly exceptional reasons and a suitable compensation strategy exists.

Buffers

7. Buffers free from development will be provided to designated sites to avoid/mitigate impacts, including recreational impact and impacts on edge habitats, and to maintain dark skies.

Surveys

8. Development will not be permitted unless it can be demonstrated that:
- a. there have been thorough habitat and species surveys;
 - b. the great crested newt strategic survey and strategy have been considered in all developments within 500m of a great crested newt pond; and
 - c. the strategic bat trapping survey has been considered in all developments within the locality of a woodland or connected habitat networks.

BIODIVERSITY PLANS AND STRATEGIES

The NERC Act 2006 places a duty on local authorities to have due regard to biodiversity when exercising their normal functions, and the NPPF requires planning policies to “promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species, and identify and pursue opportunities for securing measurable net gains for biodiversity” (paragraph 174). These targets are set out in a range of biodiversity plans and strategies from the international through to the district level.

An overview of the key biodiversity plans and strategies in the UK, and their implications for development, are set out below.

National level

The Government’s Environmental Improvement Plan 2023 is the first revision of the 25 Year Environment Plan published in 2018. It sets out ten goals aimed at restoring nature – of which the ‘apex goal’ is to halt the decline of biodiversity. The EIP 2023 includes targets and commitments to:

- Halt the decline in species abundance by 2030;
- Restore or create more than 140,000 hectares of wildlife-rich habitat outside protected sites by 2028;
- Improve the Red List Index for England by 2042;
- Achieve favourable condition for 48% of designated features in Marine Protected Areas by 2028;
- Complete update condition assessments for all SSSIs by 2028;
- Increase tree canopy and woodland cover by 0.26% by 2028;
- Reduce water pollution from agricultural nitrogen, phosphorus and sediments by at least 40% by 2038; and
- Reduce phosphorus loadings from treated wastewater by 80% by 2038.

Other targets have been set in relation to, water demand, residual waste, air quality, and. pollution from abandoned metal mines and agriculture.

The *UK Biodiversity Action Plan 2007* (UK BAP) has been superseded by the *UK Post-2010 Biodiversity Framework* and individual national biodiversity strategies. The UK Framework sets out the overarching vision, strategic goals and priority activities for the UK’s work towards international biodiversity targets (known as the ‘Aichi Targets’), as agreed by 192 parties at the UN Convention on Biological Diversity in 2010.

In England, *Biodiversity 2020: A strategy for England’s wildlife and ecosystem services* is the national biodiversity strategy, which has the stated mission “(...) to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.” In order to focus activity and assess performance in achieving this mission, Biodiversity 2020 sets out objectives relating to terrestrial and marine habitats and ecosystems, species and people.

Local level

While BAPs at the national level have now been superseded by *the UK Post-2010 Biodiversity Framework* and *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*, many county and district level BAPs still exist.

Eastleigh Borough Biodiversity Action Plan (2012) (Eastleigh Borough Council, 2012) has a local BAP which is relevant to the Site that consist of targets, comprising:

- To establish coherent and resilient ecological networks that safeguard ecosystem services for the benefit of wildlife and people against the challenges of climate change and other pressures;
- To identify, protect, maintain, restore, create and enhance priority habitats;
- To identify, protect, maintain, restore and enhance viable populations of priority species; and
- To focus conservation action in Priority Biodiversity Areas and Links to achieve maximum biodiversity benefit.

Additionally, the Hampshire Biodiversity Action Plan (July 2000) (Hampshire Biodiversity Partnership, 2000) includes County-wide plans for relevant habitats including hedgerows, and species including Pipistrelle bats and Stag Beetles.

Biodiversity Net Gain

The Environment Act 2021 makes provisions for 10% biodiversity gain, as measured by a metric (currently published by Defra), to become a condition of planning permission in England. This will come into force upon the adoption of secondary legislation and regulations on the 12th February 2024 (2nd April 2024 for sites meeting the published definition of a 'small site'). A publicly accessible register of Biodiversity Gain Sites will be published on this date, along with the Statutory Biodiversity Metric and associated guidance.

The Act specifies that biodiversity gain can be delivered on and/or offsite, and establishes the basis for purchasing off-site credits to meet the 10% obligation if required. Land used to deliver biodiversity gain must be maintained for at least 30 years, and planning conditions will require a Biodiversity Gain Plan to be submitted to and approved by the planning authority prior to commencement of development.

It also clarifies that the baseline biodiversity value of a site should be taken from the date on which planning consent is granted, unless otherwise agreed with the LPA (but not before the secondary legislation comes into force). This excludes any activities undertaken without planning permission (or other relevant permissions) after 30 January 2020 which have had the effect of reducing the biodiversity value of the land. In such cases, "the pre-development biodiversity value is to be taken to be its biodiversity value immediately before the carrying on of the activities."

Biodiversity net gain (BNG) is already enshrined in the key principles of the NPPF, and some local planning policies already include a requirement to deliver a minimum net gain figure (typically 10% or 20%).

Enhancement measures may not just benefit biodiversity. There are many functional benefits to be won from strategically planned green infrastructure projects such as semi-natural urban green spaces, sustainable drainage schemes (SUDS) and green roofs.

Appendix 3

EclA Assessment Methodology

Overview

The approach to Ecological Impact Assessment (EclA) taken in this report takes account of guidance in the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2.' (CIEEM, 2018). The Preface of the CIEEM EclA Guidelines states:

"Biodiversity: Code of practice for planning and development published by the British Standards Institute (BS 42020:2013) cites the CIEEM EclA Guidelines as the acknowledged reference on ecological impact assessment. The Guidelines are consistent with the British Standard on Biodiversity, which provides recommendations on topics such as professional practice, proportionality, pre-application discussions, ecological surveys, adequacy of ecological information, reporting and monitoring."

In accordance with the above guidance, EPR takes the following step-wise approach to EclA:

- Prediction of the activities associated with a proposed scheme that are likely to generate biophysical changes which may lead to significant effects (either positive or negative) upon Important Ecological Features (IEFs);
- Identification of the likely Zone of Influence (Zol) of those activities;
- Scoping to select the ecological features (habitats, species, ecosystems and their functions/processes) that are likely to fall within the predicted Zols and be affected by the activities;
- Evaluation of IEFs likely to be affected – both negatively and positively;
- Identification of likely impacts (positive and negative) on IEFs, together with an assessment of the geographic level at which effects are likely to be significant;
- Application of the mitigation hierarchy - refinement of the proposed scheme to incorporate impact avoidance and/or mitigation measures for negative effects on IEFs, and enhancements in order to deliver net gains;
- Assessment of the significance of residual effects and identification of any policy drivers for additional mitigation or compensation in the event of residual significant negative effects; and
- Advice on conformance with policy and legislation.

Ecological Evaluation Method

The evaluation method used in this EclA uses the following geographic scale of importance for ecological features:

- International/European;
- National;
- Regional;
- County (or Metropolitan or Local Authority-wide area);

- Local; and
- Within the Zone of Influence.

With this in mind, features taken forward for detailed impact assessment are those which:

- Are evaluated as being of at least 'Local' ecological importance or have the potential to be so; and
- Are likely to be affected, positively or negatively, by the proposals.

Ecological features deemed to be of less than 'Local' importance are considered throughout the EclA process in the context of the national planning policy requirement for 'Biodiversity Net Gain'. The implications for those features that are protected by legislation are also discussed separately at the end of the EclA report.

Ecological Importance is judged with reference to the following factors:

- Statutory requirements and policy objectives (e.g. site designations or the country lists of habitats and species of principal importance for the conservation of biodiversity); and
- Biodiversity value (e.g. diversity, rarity, scarcity, function within ecosystem, population trends).

Impact Assessment Method

The ecological features selected to be included in the assessment are those which both meet the importance threshold and are likely to be affected by the proposed scheme.

The first stage of the assessment is to determine the potential impacts upon each important ecological feature, with reference to the likely biophysical changes arising from the proposals. Impacts can be characterised according to their extent, magnitude, duration, timing, frequency, reversibility, and whether they are positive or negative.

The likelihood of cumulative impacts with other planned or consented projects is also taken into account at this stage.

An assessment is then made of whether the effect(s) of an impact upon an important ecological feature is likely to be considered 'significant' in EclA terms.

Significant Effects

The EclA Guidelines state that:

"Significance is a concept related to the weight that should be attached to effects when decisions are made. For the purpose of EclA, 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general.....in broad terms, significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution)." [our emphasis]

Put simply, an effect is considered significant if it is likely to change the structure and function of defined sites and ecosystems or the conservation status of habitats and species.

Professional judgement about significance is informed by conservation objectives for the affected feature, where available (for example conservation objectives set by Natural England for European designated sites, or in habitat and species action plans). The 'conservation status' (habitats and species) or the degree to which a feature is exhibiting 'integrity' in terms of structure, function and condition (defined sites or ecosystems) is also considered. The predicted effect of natural and man-made trends in the absence of development is also taken into account in determining the conservation status or integrity of a feature and in considering whether otherwise insignificant effects may contribute to a significant cumulative effect.

The CIEEM Guidelines state:

"The evaluation of significant effects should always be based on the best available scientific evidence. If sufficient information is not available further survey or additional research may be required. In cases of reasonable doubt, where it is not possible to robustly justify a conclusion of no significant effect, a significant effect should be assumed. Where uncertainty exists, it must be acknowledged in the EclA."

Opportunities for Biodiversity Net Gain

EPR will advise the applicant's team about how a scheme may be refined, in accordance with the mitigation hierarchy, to achieve net gains in biodiversity. Once the biodiversity measures are agreed, EPR will assess any residual effects and advise on the degree of compliance with national and local policy and nature conservation legislation. This process may evolve with the design of the development. In some instances, it may not be possible to avoid all the significant adverse effects or to deliver biodiversity net gain within the development site. In that case, EPR will advise of any opportunities to contribute to wider (offsite) biodiversity strategies which would deliver the appropriate mitigation, compensation and/or enhancement.

The final agreed measures will be set out clearly, so that the LPA can readily understand what planning conditions or legal agreements are required to achieve the necessary level of policy and legal compliance.

Appendix 4

Survey & Evaluation Methodologies

For the breeding bird survey methodology refer to **Appendix 7**

ECOLOGICAL APPRAISAL

The ecological appraisal was completed in order to inform the masterplanning process and establish the appropriate scope of an Ecological Impact Assessment (EclA) in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Guidelines for the Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. (2024). CIEEM's 2017 Guidelines for Preliminary Ecological Appraisal were also taken into account.

Desk Study Methodology

A desk study was carried out in order to gather and refer to existing biodiversity and contextual information with respect to the zone of influence and the wider area. This involved interrogation of internet resources, including the Multi-agency Geographic Information for the Countryside (MAGIC), aerial photos, current Ordnance Survey maps and historical maps. Reference was also made to local planning policies, strategies and initiatives relating to biodiversity.

A request was made to Hampshire Biodiversity Information Centre (HBIC) for any existing biological records in their database. The local records search and other desktop research was over a 2km radius for nationally and locally important features, European Protected Species and sites of European significance.

Fieldwork Methodology

An initial Site walkover was undertaken by Alice Holley and Andrew Cross of Area 1 in November 2022 and by Siobhan Pryke and Alice Holley of Area 2 in June 2024. The Site and immediately surrounding land was walked, recording habitats and features of potential value to wildlife and any evidence of, or potential for, protected or notable species or habitats, in accordance with the methods described below.

Land Use, Habitat Types, Vegetation Communities and Flora

Within the study area the land use, habitat types and landscape features (such as hedgerows and veteran trees) were described and mapped. For each main habitat type the dominant vegetation communities were recorded, along with any notable or indicator plant species, (including invasive species such as Japanese Knotweed where present). A preliminary evaluation of the structure, quality and likely management of each habitat or feature was also carried out.

The survey method used to record this information was based on the UK Habitat Classification System V2.0 (UK Hab, 2023). Botanical nomenclature in this report follows Stace (2019). The PEA habitat map is coded to Level 3 in the UKHab hierarchy.

All mandatory and some optional UKHab secondary codes were recorded as part of the survey, and are referred to in the PEA Report as appropriate. Not all secondary codes are displayed on the output maps for aesthetic reasons.

BOTANICAL SURVEY

Desktop Study

- 1.1 A desktop study was also undertaken which reviewed published information and internet resources, including data held on priority habitats, ancient woodland, veteran trees, geology, topography and landscape history for the Zol. Sources consulted included:
- The Multi-Agency Geographic Information for the Countryside (MAGIC);
 - The British Geological Survey;
 - The Soil Survey of England and Wales;
 - The Environment Agency;
 - Open-source LiDAR imagery published by DEFRA;
 - OS 1 inch to the mile OS map, Sheet 8, published 1816;
 - The 6" to the Mile Ordnance Survey Maps (c. 1880-1930s);
 - Land Utilisation Survey of Britain c.1937; and
 - Aerial imagery from the 1940s onwards.
- 1.2 A combination of the OS MasterMap Topography Layer and open-source aerial imagery (ESRI, Google Earth) was used to divide the Site into parcels and create a draft habitat map in ArcGIS software, which was then ground-truthed and updated following the field survey.
- 1.3 Each habitat parcel and linear feature (such as hedgerows) has been assigned a unique ID code. These are referred to throughout this report, and are shown on **Figures 3** of the EclA report.

Field Survey

Overview

- 1.4 The surveys were completed on 25th of September by Hannah Corrigan, Senior Ecologist, with update surveys completed on 20th of August 2025 by Andrew Cross and Jodie Southgate, Principal Ecological Consultants at EPR. Jodie and Andrew are experienced habitat and botanical surveyors who are capable of mapping to the highest level of the UK Habitat Classification (UKHab) (2023), as well as the NVC (National Vegetation Classification).
- 1.5 Each of the parcels and linear features within the Site were subject to a slow walkover in order to record the habitats, vascular plant species and vegetation communities present, along with notes on habitat condition and any evidence of management. Mature trees with the potential to meet the definition of a 'veteran' tree under either the NPPF or the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 were also recorded.
- 1.6 Further details on specific recording methods for habitats, flora and vegetation respectively are described below.

Habitats

- 1.7 Following the field survey, and drawing on the flora/vegetation data collected as described below, each habitat parcel was characterised and mapped to the most detailed level possible under UKHab, including all applicable secondary codes. A Minimum Mapping Unit (MMU) of 25m² was used.

Flora

- 1.8 A list of the vascular plant species present was recorded from each parcel, along with an estimation of relative frequency using the 'DAFOR' scale, where D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare. The prefix 'L' was used to denote 'Locally'. Nomenclature follows Stace, 4th edition 2019. Any readily identifiable non-vascular plants (bryophytes) and lichens were also recorded where present.
- 1.9 Particular attention was paid to searching for species of conservation interest, habitat quality indicator species, and invasive non-native species.
- 1.10 Species of conservation interest are defined here as species in one or more of the following categories:
- Species with a conservation status listed by the Joint Nature Conservation Committee (JNCC) in their "Conservation Designations for UK Taxa" list (JNCC, 2023); and
 - County Rare species as listed in the Surrey Rare Plant Register (Surrey Botanical Society, 2024).
- 1.11 The following habitat quality indicator lists were used:
- Ancient Woodland Vascular Plants (Rose, 1999);
 - UKHab g3a Lowland Meadow indicator species (UKHab, 2023); and
 - Guidance for the Selection of Sites of Nature conservation Importance (SNCIs) in Surrey, Table 1 – Species typical of grassland of conservation interest in Surrey (Gibbs, 2008).
- 1.12 The presence/absence and abundance/distribution of species of conservation interest and habitat quality indicators were used to assist with the classification of habitat types and vegetation communities (see below), and in the assessment of flora and vegetation against the evaluation criteria described under 'Evaluation Methodology' below.
- 1.13 Invasive non-native species are defined as those listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

Vegetation

- 1.14 Vegetation was mapped in the field by drawing polygons of homogenous vegetation onto draft field maps. Where necessary, habitat parcels were split to distinguish between different vegetation communities or subcommunities. Divisions between vegetation types were drawn by the surveyor based on field observation, aerial imagery, and/or LiDAR imagery.

- 1.15 A mixture of 1x1m and 2x2m quadrats were recorded in the grassland parcels, to aid identification of vegetation communities and/or to collect data for condition assessment under the Statutory Biodiversity Metric (DEFRA, 2024). The “Domin scale” was used for the 2x2m quadrats in accordance with the National Vegetation Classification (NVC) methodology (Rodwell, 2006).
- 1.16 Where possible, the vegetation within the Site was classified according to the NVC community descriptions (Rodwell, 1991-2000) using a combination of the quadrat data and overall species lists and notes for each parcel. The identification of NVC communities informs the evaluation of the vegetation supported by the Zol of the Proposed Scheme against the criteria described under ‘Evaluation Methodology’ below.

Evaluation Methodology

- 1.17 As per the CIEEM Guidelines for Ecological Impact Assessment (EcIA) (2018), the first stage of an EcIA is to identify “important ecological features” within the Zol of a proposed scheme, and evaluate the relative importance of these on a geographic scale (National, Regional, County, Local or Within the Zol). Typically, only those features of “Local” importance or above are taken forward for full impact assessment, with some exceptions (referred to where relevant below).
- 1.18 The methods used for evaluating the habitats, flora and vegetation at the Site are set out below.

Habitat Classification

- 1.19 The evaluation of habitats is typically contained within the evaluation of their component flora and vegetation, as habitat type in itself does not convey an intrinsic level of importance on the CIEEM geographic scale.
- 1.20 Some habitat parcels and features, however, may qualify as “important ecological features” in their own right, i.e. for reasons unrelated to their component flora/vegetation or geographic level of importance. This includes habitats afforded weight in planning policy, such as those associated with areas of Provisional Ancient Woodland, S41 ‘Priority’ habitats, ancient/veteran trees, and habitats which are of intrinsic importance as wildlife corridors or historic features of long ecological continuity. Where present, such habitats are discussed in **Section 3**.

Flora

- 1.21 An interpretation of the potential importance of the flora supported by the Zol of the development proposals is based on descriptions given in the following:

National

- Guidelines for the Selection of Biological Sites of Special Scientific Interest (SSSIs): Chapter 11: Vascular Plants (Taylor et al., 2021).

Vegetation

- 1.22 An interpretation of the potential importance of the vegetation communities identified within the Zol of the Proposed Scheme is based on descriptions given in the following:

National

- Guidelines for the Selection of Biological Sites of Special Scientific Interest (SSSIs): Chapter 2a Woodlands, Wood Pasture and Parkland, and Veteran Trees (Latham et al., 2018); and
- Guidelines for the Selection of Biological Sites of Special Scientific Interest (SSSIs): Chapter 3 Grasslands (Jefferson et al., 2019).

- 1.23 It is important to note that the purpose of this assessment is not to identify sites that could be considered for selection/notification as SACs, SSSIs or SINC. Rather, the criteria set out in the resources listed above are used as a tool to inform an objective evaluation of the flora and vegetation at the Site according to CIEEM's geographic frame of reference (2018).

Classification of Veteran Trees

- 1.24 For the veteran tree methodology please refer to **Appendix 5**.

Fauna

The potential for habitats and features to support protected or notable species, or species of principal importance for the purpose of conserving biodiversity, were recorded, as were any signs encountered. The following is a summary of the approach taken for this Ecological Appraisal.

Badgers

Consideration was given to the presence of habitat potentially suitable for supporting Badgers, including woodland and grassland. Potential evidence of the presence of Badgers was looked out for and noted, including earthworks that might be Badger setts, and signs such as dung pits, mammal pathways through ground vegetation and under fences, and hairs on fences.

Bats

Bats use buildings and trees for roosting and breeding and, where present, a preliminary assessment of the potential for these features to support bats was undertaken during the survey. Potential may include gaps beneath roof or hanging tiles, in soffits, or beneath the end of ridge tiles, but also under the edge of felt on flat roofs. In trees potential roosting features include woodpecker holes, splits in branches and peeling bark.

Preliminary evidence was obtained through noting any staining around potential roost entrances, and looking for bat droppings, for example on window sills. A preliminary evaluation was also undertaken of potential bat foraging habitat in the area, including woodland, pasture, hedges and watercourses.

Birds

Any birds seen whilst carrying out the survey were recorded, and the type and quality of habitats available for birds was considered, including vegetation suitable for nesting, and habitat with the potential to support valued species.

Amphibians

Consideration was given to the presence of habitat potentially suitable for supporting amphibians, including water bodies (ponds, ditches), woodland, scrub and rough grassland, and features such as log piles that might provide hibernation areas. Where appropriate, effort to gather direct evidence of

amphibians was undertaken by making a preliminary search for eggs by examining vegetation within reach of the margins of water bodies, and for resting animals on land by looking under potential refuges, such as stones, wood and rubbish near to water bodies.

Reptiles

The presence and quality of habitat considered potentially suitable for supporting reptiles was recorded. This included areas providing basking and foraging areas, hibernation and breeding sites, such as rough grassland and scrub, banks, burrows, rubble piles, compost heaps, hedgbanks and water bodies.

BAT SURVEYS

The suite of bat surveys carried out was designed with reference to the Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th Ed, 2023).

Building Inspection

A daytime external and internal inspection of all buildings on Site was undertaken on the 6th June 2024 by Siobhan Pryke BSc (Hons), who holds Natural England level 2 bat survey class license holders.

The buildings were searched externally and internally for evidence of use by bats. The search included looking for suitable bat roosting features and associated potential access/egress points. The search also included looking for direct evidence of bat use such as:

- the presence of bats;
- feeding remains;
- bat droppings on surfaces on and/or immediately adjacent to the building; and
- staining or scratch marks around suitable bat roost locations or suitable access points into the building.

The external surfaces/features of the buildings were thoroughly searched for evidence of bats, using a high-powered torch and binoculars. The internal inspection comprised of a search of the roof voids for evidence of bats where available.

No bat droppings were found.

Based on this assessment, each building was classified as either a confirmed roost, or as being of High, Medium, Low or Negligible suitability for roosting bats.

Ground Level Tree Assessment

A survey of trees within the Site was completed on November 2022 by Alice Holley and Phil Brown in Area 1 and in August 2024 by Siobhan Pryke and Matthew Robinson in Area 2. The surveys comprised a search from ground level, with the aid of binoculars, for features with suitability to support bats, including woodpecker holes, loose bark, cracks and crevices, broken off limbs and dense Ivy *Hedera helix*, as well as signs of bats, such as scratching and staining.

A GPS point was taken for each tree assessed and the following information was recorded:

- Tree species;
- Approximate height;

- Approximate diameter at breast height;
- Any potential roost feature, its type, aspect, height and any other descriptive features;
- Suitability for roosting bats; and
- Any constraints to survey.

Based on the information collected during the surveys, trees were categorised for their suitability for bats in accordance with *Bat Surveys – Good Practice Guidelines* (Collins, 2024). Based on the features recorded, trees were identified as having either PRF-I or suitable to support low numbers of roosting bats only or PRF-M or suitable to support multiple bats.

Night-time Bat Walkover Surveys

Area 1 bat transects were undertaken under the old guidance in 2023, where the transect route was walked monthly between April and August. Additionally these surveys did not have the fixed point at the beginning of the survey.

The autumn survey for Area 1 and all surveys for Area 2 were based on current good practice bat survey guidelines (Collins, 2023) with the transect routes designed to sample a range of different habitats across the Site with vantage point surveys undertaken for the first 30 minutes after sunset. During each survey, details such as species/species group, numbers of bats and direction of flight (where observed) and behaviour, e.g. commuting, foraging and social calling were noted.

Each transect was walked by a pair of surveyors using bat detectors (Batlogger M or M2). Surveyors walked each transect at a steady pace recording bat activity (as described above). The number of 'bat passes' per species/species group were recorded in addition to bat behaviour. In this report a bat pass is defined as 'the number of echolocation registrations within a 10 second interval'. For example, this could be a single registration, such as a bat flying past a 'stopping point' whilst commuting elsewhere, to repeated registrations, e.g. associated with foraging'. On this basis, a maximum of 6 bat passes can arise from an individual bat per minute.

The starting location along each route and direction the transect was walked was changed across the surveys to reduce sampling bias as far as reasonably possible. Each dusk survey commenced at sunset and continued for approximately 2 hours.

Survey metadata is provided below in **Table A4.1**.

Table A4.1: Nighttime Bat Walkover Survey Metadata

Date	Area	Start/End Time	Sunset	Start / End Temperature (°C)	Start / End Cloud Cover (%)	Start / End Wind Speed (Beaufort)	Rain
17/04/2023	1	19:48/22:03	20:03	12/7	50/100	1/1	Dry
15/05/2023	1	20:33/22:48	20:48	13/11	0/0	0/0	Dry
19/06/2023	1	21:07/23:22	21:22	19/17	70/90	0/0	Dry
17/07/2023	1	20:57/23:12	21:12	17/14	55/10	0/0	Dry
21/08/2023	1	20:12/22:27	20:27	20/18.5	50/0	1/1	Dry
02/10/2024	1	18:40/20:40	18:40	17/13	100/80	2/1	Dry
29/08/2024	2	19:56/21:56	19:56	22/13	60/0	0/0	Dry

24/09/2024	2	18:58/20:58	18:58	16/14	100/100	1/0	Dry
06/05/2025	2	20:34/22:34	20:34	12/11	40/90	2/1	Dry

Automated Static Detector Surveys

Automated static detectors were deployed to sample different habitats across the Site and gather further information on the bat assemblage and relative bat activity. Four automated static detectors (Anabat Express and/or Swifts) were deployed each time, although detector no.4 failed to record in April.

Automated detectors were deployed for five consecutive nights each surveyed month from April-June 2025. Weather information for each survey period was provided by Weathernet from the nearest weather station.

Bat calls were analysed using appropriate software (Kaleidoscope) and identified to species/species group based on parameters in Russ (2021) and Middleton *et al.* (2014).

Survey metadata is shown in **Table A4.2a and b** below and raw data is shown in **Table A4.3 and A4.4** below.

Table A4.2a: Static Detector Surveys Metadata

Month	Date	High/Low Temperature (°C)	Sunset	Sunrise	Survey hours (incl 0.5hrs prior to sunset and after sunrise)
April	17/05/2023	11-5	20:02	06:05	11:03
	18/05/2023	9-5	20:03	06:03	11:00
	19/05/2023	9-2	20:05	06:01	10:56
	20/05/2023	9-6	20:07	05:59	10:52
	21/05/2023	8-6	20:08	05:57	10:49
May	15/05/2023	11-8	20:44	05:08	09:24
	16/05/2023	10-6	20:47	05:06	09:19
	17/05/2023	10-6	20:48	05:05	09:17
	18/05/2023	10-8	20:50	05:04	09:14
	19/05/2023	10-9	20:51	05:02	09:11
June	19/06/2023	22-16	21:22	04:50	08:28
	20/06/2023	23-17	21:22	04:50	08:28
	21/06/2023	22-16	21:22	04:50	08:28
	22/06/2023	27-15	21:22	04:51	08:29
	23/06/2023	25-13	21:23	04:51	08:28
July	17/07/2023	20-14	21:11	05:10	08:59
	18/07/2023	21-10	21:10	05:11	09:01
	19/07/2023	23-16	21:09	05:12	09:03
	20/07/2023	22-11	21:08	05:14	09:06
	21/07/2023	21-10	21:06	05:15	09:09
August	22/08/2023	19-13	20:13	06:05	10:52
	23/08/2023	20-16	20:11	06:06	10:55
	24/08/2023	18-10	20:09	06:08	10:59

Month	Date	High/Low Temperature (°C)	Sunset	Sunrise	Survey hours (incl 0.5hrs prior to sunset and after sunrise)
	25/08/2023	15-12	20:07	06:09	11:02
	26/08/2023	15-9.1	20:05	06:11	11:06
September	20/09/2023	19-14	19:08	06:47	12:39
	21/09/2023	18-9	19:06	06:49	12:43
	22/09/2023	18-8	19:04	06:50	12:46
	23/09/2023	18-7	19:01	06:52	12:51
	24/09/2023	20-17	18:59	06:53	12:54
October	24/10/2022	15-13	17:54	07:46	14:52
	25/10/2022	17-15	17:52	07:47	14:55
	26/10/2022	16-15	17:50	07:49	14:59
	27/10/2022	18-17	17:48	07:51	15:03
	28/10/2022	15-12	17:46	07:53	15:07

Table A4.2b: Static Detector Surveys Metadata

Month	Date	High/Low Temperature (°C)	Sunset	Sunrise	Survey hours (incl 0.5hrs prior to sunset and after sunrise)
April	07/04/2025	14-1	19:46	06:23	11:37
	08/04/2025	15-3	19:47	06:21	11:34
	09/04/2025	14-5	19:49	06:19	11:30
	10/04/2025	16-3	19:51	06:16	11:25
	11/04/2025	22-5	19:52	06:14	11:22
May	07/05/2025	14-9	20:34	05:21	09:47
	08/05/2025	15-6	20:35	05:20	09:45
	09/05/2025	18-5	20:37	05:18	09:41
	10/05/2025	21-6	20:39	05:16	09:37
	11/05/2025	23-14	20:40	05:15	09:35
June	06/06/2025	18-11	21:16	04:46	08:30
	07/06/2025	13-8	21:17	04:45	08:28
	08/06/2025	17-10	21:17	04:45	08:28
	09/06/2025	19-14	21:18	04:44	08:26
	10/06/2025	22-12	21:19	04:44	08:25
July	16/07/2024	19-12	21:11	05:10	08:59
	17/07/2024	24-13	21:10	05:11	09:01
	18/07/2024	27-14	21:09	05:12	09:03
	19/07/2024	29-16	21:08	05:13	09:05
	20/07/2024	22-17	21:07	05:15	09:08
August	12/08/2024	27-13	20:30	05:48	10:18
	13/08/2024	24-17	20:28	05:49	10:21
	14/08/2024	23-13	20:26	05:51	10:25
	15/08/2024	20-14	20:24	05:52	10:28
	16/08/2024	24-11	20:23	05:54	10:31
September	10/09/2024	16-7	19:29	06:33	12:04
	11/09/2024	11-6	19:27	06:34	12:07
	12/09/2024	12-3	19:25	06:36	12:11
	13/09/2024	15-4	19:22	06:37	12:15
	14/09/2024	18-5	19:20	06:39	12:19
October	23/10/2024	14-7	17:55	07:42	14:47
	24/10/2024	15-11	17:53	07:44	14:51
	25/10/2024	14-7	17:51	07:45	14:54
	26/10/2024	13-6	17:49	07:47	14:58
	27/10/2024	12-11	16:47	06:49	15:02

Table A4.3: Results of automated bat detector surveys 2022-2023

Survey Period	Static number / Species	Pp	Ps	Pn	P?	Es	Nn	NI	Nn/NI	LFB	M sp	M sp/ LE	LE	Barb	Total
April	1	179	409	0	8	0	0	0	0	0	0	0	0	0	596
	2	1029	6	0	0	0	0	2	0	1	0	0	0	0	1038
May	1	7104	502	3	0	2	19	1	0	0	36	0	1	0	7668
	2	3725	36	0	4	0	3	2	0	1	1	0	0	0	3772
June	1	1787	229	0	0	0	0	0	0	5	7	0	2	0	2030
	2	6084	212	0	0	0	7	0	3	1	28	0	0	0	6335
July	1	2531	104	0	0	0	3	0	9	11	13	0	0	1	2672
	2	3367	96	0	0	0	14	0	0	0	24	0	54	14	3569
August	1	1150	133	0	42	12	7	13	2	2	17	0	24	0	1402
	2	3875	616	0	40	4	10	5	0	0	47	0	21	2	4620
September	1	1928	165	0	0	2	9	4	0	0	261	0	13	15	2397
	2	5049	2205	20	0	0	21	2	0	0	545	0	9	14	7865
October	1	2320	133	1	0	1	0	0	0	0	1	0	285	16	2757
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total passes	40128	4846	24	94	21	93	29	14	21	980	0	409	62	46721
	% of total passes	85.89	10.37	0.05	0.20	0.04	0.20	0.06	0.03	0.04	2.10	0.00	0.88	0.13	

Pp = Common Pipistrelle; Ps = Soprano Pipistrelle; Pn = Nathusius' Pipistrelle; P? = unknown Pipistrelle species; Es = Serotine; Nn = Noctule; NI = Leislers; Nn/NI = Nyctalus species; LFB = low frequency bat (Noctule, Serotine or Leisler's); M sp = Myotis sp; M sp/LE = Myotis species or Long Eared bat; LE = Brown long-eared

Table A4.4: Results of automated bat detector surveys 2024-2025

Survey Period	Static number / Species	Pp	Ps	Pn	P?	Es	Nn	NI	Nn/NI	LFB	M sp	M sp/ LE	LE	Barb	Total
April	1	63	10	0	0	0	10	0	2	0	5	0	12	0	102
	2	38	2	0	0	0	6	0	1	0	5	0	2	1	55
	3	964	124	0	0	0	17	0	4	0	7	0	2	0	1118
May	1	126	12	1	0	1	0	5	0	0	6	0	21	2	174
	2	1279	78	1	0	1	1	0	1	10	9	0	29	0	1409
	3	683	31	0	0	0	6	0	0	4	3	0	5	0	732
June	1	217	39	0	1	0	0	4	0	3	0	0	12	0	276
	2	220	6	0	0	0	0	0	0	0	2	0	6	1	235
	3	219	5	0	0	0	1	0	0	2	19	1	13	0	260
July	1	1,258	2	0	1	2	4	0	0	13	0	0	23	0	1303
	2	140	11	0	0	5	10	6	39	6	4	0	18	0	239
	3	129	5	1	0	32	42	0	35	48	10	0	4	0	306
August	1	2721	100	0	0	9	3	0	0	6	4	0	24	0	2867
	2	110	24	0	0	4	16	1	1	0	4	0	14	0	174
	3	167	17	0	0	2	3	0	4	0	14	0	5	0	212
September	1	1474	4	0	0	2	0	0	3	0	0	0	3	1	1487
	2	450	148	1	1	11	0	0	1	0	6	0	3	0	621
	3	18	153	3	0	4	0	0	1	3	9	0	5	0	196
October	1	21	4	2	0	2	1	2	2	0	15	0	2	2	53

	2	67	53	0	0	1	8	0	4	0	33	0	1	0	167
	3	41	2	1	0	1	2	1	1	0	6	0	2	1	58
	Total passes	10,405	830	10	3	77	130	19	99	95	161	1	206	8	12,044
	% of total passes	86.39	6.89	0.08	0.02	0.64	1.08	0.16	0.82	0.79	1.34	0.01	1.71	0.07	N/A

Pp = Common Pipistrelle; Ps = Soprano Pipistrelle; Pn = Nathusius' Pipistrelle; P? = unknown Pipistrelle species; Es = Serotine; Nn = Noctule; NI = Leislers; Nn/NI = Nyctalus species; LFB = low frequency bat (Noctule, Serotine or Leisler's); M sp = Myotis sp; M sp/LE = Myotis species or Long Eared bat; LE = Brown long-eared