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Project: Codicote Development
Report: Preliminary Ecological Appraisal

QUALITY ASSURANCE

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1.0 EXECUTIVE SUMMARY

Greengage Environmental Limited (Greengage) was commissioned by Howarth Contractors Ltd in January 2026, to undertake a Preliminary Ecological Appraisal (PEA) of an area of land known as 'The Codicote Development', located in Codicote, Welwyn AL6 9TU, hereafter referred to as 'the site'.

This document is a report of the PEA and has been produced to inform a planning application for the site which seeks to demolish the former Big Cat Sanctuary Site on Codicote Road and construct approximately 109 new residential dwellings.

This PEA aims to establish the presence of, or potential for, designated sites and legally protected/priority habitats and species at the site or within the zone of influence (Zol) i.e. the ecological constraints, assess likely impacts based on design stage proposals/assumptions and subsequently to provide recommendations for additional targeted surveys and/or appropriate mitigation measures in accordance with the mitigation hierarchy, where applicable. Ecological enhancement recommendations have also been provided.

The site extends to 4.02 hectares (ha) and comprised modified grassland, scrub, woodland, and areas of hardstanding associated with the former farm buildings.

Ecological Constraints and Additional Surveys/Mitigation Recommendations

The below designated sites, habitats, and species have been confirmed to be present or have potential to be present due to suitable habitats on the site and/or habitat connectivity with the wider landscape. Sections 4.0 and 5.0 of the PEA report should be referred to for full details.

Table 1.1 Ecological Constraints and Recommendations

Ecological Constraint	Level of Suitability/Confirmed Presence	Additional Surveys/Mitigation Recommendations (Summary)
Statutory designated sites	Confirmed presence within 2km	Three statutory designated sites are located within 2km of the site, the closest being Danesbury Park Local Nature Reserve (LNR) located approximately 90m southeast of the site. Given the site's semi-rural setting and separation from these sites by intervening land uses, no direct or indirect construction phase impacts (such as dust deposition or physical disturbance) are anticipated on this or other nearby statutory sites. The site is located within the Impact Risk Zone (IRZ) for Singlers Marsh Site of Special Scientific Interest (SSSI). However, the proposed development is not considered to represent a high-risk activity requiring consultation with Natural England. No Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites are located within 10km therefore, no further assessment under the Habitats Regulations is required.

Non-statutory designated sites	Confirmed presence within 2km	Numerous non-statutory designated sites are located within 2km of the site, including Local Wildlife Sites (LWS), Ancient Woodland Inventory sites, a Regionally Important Geological Site (RIGS), and veteran trees. The nearest designation is Longston and Catchpole Woods Local Wildlife Site (LWS), located 120m northeast of the site. Given the separation distance, intervening land uses, and the scale of the proposed development, no significant effects on these or other nearby designated sites are anticipated during either the construction or operational phases, and no specific mitigation is considered necessary.
Habitats Modified grassland, scrub, woodland, and hardstanding	Confirmed presence	An updated walkover survey should be undertaken during the optimal botanical survey season (May to September inclusive) to confirm habitat type and condition and to inform the Biodiversity Net Gain Assessment (BNGA) (see 'General Recommendations' below).
Local priority habitat	Confirmed presence within 2km	Coastal and floodplain grazing marsh, good quality semi-improved grassland, traditional orchard, and deciduous woodland (all Habitats of Principal Importance) have been identified within proximity to the site, the nearest being coastal and floodplain grazing marsh located 94m south. Given the separation distance, intervening land uses, and lack of direct hydrological or habitat connectivity, these habitats are considered to lie outside the likely Zol of the proposed works. As such, no specific mitigation is required beyond standard good-practice construction management.

Species

Badger	Low	A pre-commencement badger check should be undertaken to confirm the absence of any newly established setts within the site. Works should proceed in accordance with best practice measures outlined in Badgers: surveys, mitigation, and licensing (Natural England, 2019), including appropriate precautions during site clearance to avoid harm to commuting or foraging badgers.
Bats (foraging/ commuting)	Moderate	A sensitive lighting strategy must be implemented during construction to minimise impacts on commuting and foraging bats, in accordance with Bat Conservation Trust and Institution of Lighting Professionals guidance. ¹
Bats (roosting - summer/ transitional - buildings/structures)	High	In accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines, ¹ three dusk emergence surveys must be undertaken between May and August (inclusive) to determine the presence or likely absence of roosting bats and to inform any mitigation and licensing requirements.
Birds - breeding/ nesting	High	Vegetation clearance should be undertaken outside of the bird nesting season (March to August inclusive), where possible. Where this is not feasible, a nesting bird check must be

		undertaken by a suitably qualified ecologist (SQE) no more than 48 hours prior to works. If active nests are identified, an appropriate exclusion zone must be established and maintained until the nest is no longer in use, in accordance with the Wildlife and Countryside Act 1981 (as amended). ²
Dormice	Moderate (northern woodland), Poor (southern woodland)	As the northern woodland, assessed as having moderate suitability for hazel dormouse, will be retained, and only the southern woodland of low suitability is to be removed, no further surveys are considered necessary. Vegetation clearance should be undertaken under a Precautionary Method of Working (PMoW), supervised by a suitably qualified ecologist (SQE), with measures such as phased clearance and sensitive working practices implemented to avoid harm to any individuals that may be present, in accordance with the Wildlife and Countryside Act 1981 (as amended). ²
Reptiles (widespread species)	Moderate	In accordance with Froglife guidance, ^{3 4} presence/likely absence surveys must be undertaken to determine the presence of reptiles and to inform appropriate mitigation. This will comprise a minimum of seven survey visits undertaken between April and September (inclusive). Survey results will inform the requirement for mitigation measures, which may include a precautionary working method, habitat manipulation, and/or translocation, where necessary.
Protected/notable plant species	Low	No further targeted surveys are required at this stage. An updated walkover survey (as outlined within Section 3.4) will confirm the presence or absence of protected or notable plant species and inform any requirement for mitigation.
Invasive non-native species	Low	No further targeted surveys are required at this stage. An updated walkover survey (as outlined within Section 3.4) will confirm the presence or absence of invasive non-native species. Should any species be identified, appropriate management measures should be implemented in accordance with the Wildlife and Countryside Act 1981 (as amended). ²
Other priority/notable species	Low	No further surveys are required. Works should proceed in accordance with good practice measures, including maintaining habitat connectivity where feasible. Precautionary measures should include avoiding the creation of barriers to movement (e.g. provision of 130mm x 130mm gaps within fencing) to facilitate species such as hedgehog.

Ecological Enhancements

Table 1.2 Ecological Enhancement Recommendations

Ecological Feature	Recommendations
Native species-rich planting	New planting should prioritise native species to enhance biodiversity, including species-rich hedgerows and mixed shrub planting reflective of local character.

Species rich grassland	Creation of species rich grassland habitat, managed with a longer, varied sward, providing suitable habitat for amphibians and reptiles within the area. This habitat should provide a minimum of 8 species per m ² and contain a mixture of native species including forbs and grasses (and sedges and rushes where suitable).
Hedgerow creation	New hedgerows should comprise native species such as hawthorn <i>Crataegus monogyna</i> , blackthorn <i>Prunus spinosa</i> , hazel <i>Corylus avellana</i> and field maple <i>Acer campestre</i> to provide connectivity, foraging and nesting opportunities.
Wildflower grassland	Areas of amenity grassland should be replaced, where feasible, with species-rich wildflower grassland to enhance floral diversity and support invertebrates.
Tree planting	Native tree planting (e.g. oak <i>Quercus robur</i> , hornbeam <i>Carpinus betulus</i> , field maple) should be incorporated to strengthen habitat connectivity and provide long-term ecological value.
Log piles / deadwood habitat	Retention or creation of deadwood features (e.g. log piles) within landscaped areas to provide habitat for invertebrates and small mammals.
Bat boxes	Exact number of bat boxes will be advised following bat survey. Boxes should ideally comprise woodcrete for long lasting durability. Suggested box models include Schwegler 1FR, ⁵ Ibstock bat boxes, ⁶ or similar integrated bat bricks/tubes, installed at suitable heights on a variety of building aspects and away from excessive artificial lighting. Additional boxes may be installed on retained trees of sufficient trunk diameter where appropriate. Alternative box models to be discussed and agreed with an ecologist prior to installation. Specific siting to be set out within a Construction Environmental Management Plan (CEMP)/Landscape Ecological Management Plan (LEMP) (see below).
Bird boxes	Installation of approximately 1 no. integral bird box per dwelling (where feasible) during the construction stage. Boxes should ideally comprise woodcrete for long lasting durability. Target species may include house sparrow <i>Passer domesticus</i> , starling <i>Sturnus vulgaris</i> and swift <i>Apus apus</i> . Suggested box models include integrated swift bricks, sparrow terraces, and general-purpose nest boxes. Full south-facing elevations should be avoided to prevent overheating of nests during summer months. Additional boxes may be installed on retained trees of sufficient trunk diameter where appropriate. Alternative box models to be discussed and agreed with an ecologist prior to installation. Specific siting to be set out within the CEMP/LEMP.

General Recommendations

In accordance with the Environment Act, 2021⁷, National Planning Policy Framework⁸ (NPPF) 2024, and local policy drivers, unless a site is exempt, development proposals are required to provide a measurable net gain in biodiversity. The development must deliver a minimum of 10% Biodiversity Net Gain (BNG), which should be evidenced through a Biodiversity Net Gain Assessment (BNGA) using the Statutory Biodiversity Metric (SBM)⁹. The BNGA should be provided via a separate report.

A CEMP providing greater detail on the above mitigation recommendations and in accordance with British Standard 42020: 2013 Biodiversity¹⁰, should be produced and implemented for the site and secured through planning condition.

N.B. For guidance on the validity of reports/surveys, the CIEEM Advice Note 'On the Ecological Lifespan of Ecological Reports and Surveys'¹¹ should be referred to. This report/survey has been undertaken in March 2026 and is considered valid until March 2027.

2.0 INTRODUCTION

Greengage Environmental Limited (Greengage) was commissioned by Howarth Contractors Ltd in January 2026 to undertake a Preliminary Ecological Appraisal (PEA) of an area of land known as 'The Codicote Development', located in Codicote, Welwyn AL6 9TU, hereafter referred to as 'the site'.

This document is a report of the PEA and has been produced to inform a planning application for the site which seeks to demolish the former Big Cat Sanctuary Site on Codicote Road and construct approximately 109 new residential dwellings.

This PEA aims to establish the presence of, or potential for, designated sites and legally protected/priority habitats and species at the site or within the zone of influence (Zoi) i.e. the ecological constraints. It assesses likely impacts on the ecological constraints based on design stage proposals/assumptions and subsequently provides recommendations for additional targeted surveys and/or appropriate mitigation measures in accordance with the mitigation hierarchy, where applicable. Ecological enhancement recommendations have also been provided.

2.1 SITE DESCRIPTION

The site extends to approximately 4.02 hectares (ha) and is centred on Ordnance Survey National Grid Reference (OS NGR): TL 22313 10947, OS Co-ordinates 522313, 210947.

The site comprises land at 'The Codicote Development' on Codicote Road, Codicote, Hertfordshire. This includes urban habitats, which comprise a large main dwelling with an associated farm shop use, smaller residential bungalows, lodges and mobile homes; areas of incomplete construction comprising walls and foundations; hardstanding gravel roads and driveways; and barns, sheds, and other related storage. Due to the site's past use for the keeping of big cats, parts of the site also contain rows of open-air, square, brick-built enclosures, planted with non-native species, now also overgrown with native scrub species such as bramble *Rubus fruticosus* and nettle *Urtica dioica*. The site also consists of extensive green space, comprising areas of unmanaged scrub, deciduous and mixed woodlands, rough grassland, and individual trees, as well as managed grasslands in the form of modified grassland lawns, and small fenced pastures.

Although much of the site is undisturbed, some areas are subject to ongoing human activity, with occupied mobile homes, bungalows and lodges present within the site, and areas of disturbance associated with storage, household waste, and derelict structures. Vegetation across the site reflects limited management, with scrub and tall unmanaged grassland dominating outside the built footprint, alongside localised areas of bare ground and debris.

The site is located within a rural settlement-edge on the outskirts of Codicote, with surrounding land use comprising a mix of residential properties, roads, agricultural land, and semi-natural habitats. Danesbury Park Local Nature Reserve lies to the south-east of the site, while Singlers Marsh Local Nature Reserve lies to the south, associated with the River Mimram corridor, with the river running approximately 30 metres south of the site.

Beyond the immediate site, the wider landscape comprises a mosaic of farmland, woodland, river corridor habitats, and settlement typical of north Hertfordshire, with several locally designated sites forming a connected ecological network.

3.0 METHODOLOGY

The PEA was undertaken in accordance with guidance in the UK Habitat Classification System (UKHab)¹² Version 2 and the Chartered Institute of Ecological and Environmental Management (CIEEM) (2017) Guidelines for Preliminary Ecological Appraisal¹³, in accordance with British Standard (BS) 2020:2013: Biodiversity. The overall assessment consisted of:

- A desk study to collate site specific biological information gained from statutory and non-statutory consultation; and,
- A site walkover comprising UKHab survey and scoping assessment to record and assess protected/priority habitats and species.

3.1 DESK STUDY

Environmental Databases

A review of readily available ecological information and other relevant environmental databases (including the Multi-Agency Geographic Information for the Countryside (MAGIC) website¹⁴) was undertaken for the site and a radius of 2 kilometres (km) from the site boundary, to search for statutory designated sites at the local to international level.

A review of the MAGIC website was also undertaken to check for records of European Protected Species (EPS) licences within 2km of the site. EPS licences dated within the past 10 years are considered to be most relevant.

Where the site is identified to be located within the Impact Risk Zone (IRZ) for a statutory designated site (e.g. Special Protection Area (SPA)/Special Area of Conservation (SAC)/Ramsar or Site of Special Scientific Interest (SSSI)) the features for which the designated site is notified and the types of proposed development which could potentially have adverse impacts (and trigger the requirement for further assessment, e.g. Habitat Regulations Assessment (HRA) or SSSI Impact Assessment) have also been reviewed.

UK Biodiversity Action Plans (BAPs) set priorities for nationally important habitats and species. To support the BAPs, Habitat/Species Statements (otherwise known as Habitat Action Plans (HAPs) and Species Action Plans (SAPs)) were produced to provide an overview of the status of the habitats/species and set out the broad policies that can be developed to conserve them. A list of priority habitats and species of conservation importance was also developed.

The UK BAP was succeeded in 2012 by the UK-Post 2012 Biodiversity Framework which informed the creation of the Biodiversity 2020 strategy; England's contribution towards the UK's commitments under the United Nations Convention of Biological Diversity. Subsequently, this has been replaced by the Kunming-Montreal Global Biodiversity Framework¹⁵ to 2030.

Despite this, the UK BAP priority species lists, and conservation objectives still remain valid through integration with local BAPs (which remain valid), and in the form of the Habitats and Species of Principal Importance list (as required under Section 41 of the Natural Environment and Rural Communities (NERC) Act, 2006)¹⁶.

Local Biodiversity Action Plans (LBAPs) ensure that national action plans (the UK BAP/Biodiversity 2020) are translated into effective action at the local level and establish targets and actions for locally characteristic species and habitats.

- The desk study reviewed UKBAP and LBAP habitats and species with consideration as to which habitats/species are of relevance to the site and/or proposed development.

Local Environmental Records Centre

A data consultation with the Local Environmental Records Centre (LERC), Herts Environmental Records Centre (HERC), for a 2km search radius around the site was also undertaken and the data received was reviewed to identify the location and citations of any local non-statutory designated sites and the presence of any protected/priority species.

A summary of the records received from HERC is discussed under 'Species Records' in Section 4.1. The records discussed under each relevant subheading have been included based on their relevance to the site e.g. there are suitable habitat types present on site to support the species, there is habitat connectivity between the site and record location and/or the record is in proximity of the site. Records dated within the past 10 years have also been favoured.

3.2 SITE WALKOVER

Habitats

The extent, distribution, type, and categories of the different habitats on site were identified and mapped according to the standard UKHab methodology, using the UKHab primary codes, and UKHab secondary codes in square brackets to provide supplementary information where appropriate. Mandatory codes for habitat mosaics, priority and Annex 1 habitats that occur in multiple primary habitats have also been applied where appropriate. Any protected plant species and/or invasive non-native species (INNS) present were also noted.

Hedgerow Assessment

A hedgerow is defined as “...any boundary line of trees or shrubs over 20m long and less than 5m wide, and where any gaps between the trees and shrub species are less than 20m wide”.¹⁷ Any bank, wall, ditch or tree within 2m of the centre of the hedgerow is considered to be part of the hedgerow habitat, as is the herbaceous vegetation within 2m of the centre of the hedgerow.

Hedgerows on site were recorded with consideration given as to whether they may require assessment under the landscape and wildlife criteria listed in Schedule 1 Part II of the Hedgerows Regulations 1997¹⁸, using the standard methodology in the Regulations, which is detailed below.

For hedgerows of 30m in length or less, the entire hedgerow is surveyed. Hedgerows greater than 30m in length are split into 100m sections and the central 30m of each 100m section is surveyed. The number of woody species present is recorded within each length along with the presence of any of the features listed in Sub-paragraph 4 of the Regulations, namely the presence of a bank, wall, or ditch, less than 10% gaps, at least one standard tree per 50m, at least three woodland plant species, at least four points achieved from connections to other hedgerows, woods or ponds, and/or a parallel hedge within 15m.

A hedgerow is considered important under the Regulations where:

- It has an average of seven or more woody species in the surveyed section(s);
- It has an average of six woody species in the surveyed section(s) and three or more features from Sub-paragraph 4;

- It has six woody species and one of the following rare trees – black poplar *Populus nigra*, large-leaved lime *Tilia platyphyllos*, small-leaved lime *Tilia cordata*, wild service tree *Sorbus torminalis*;
- It has an average of five woody species on average in the survey section(s) and has four or more features from Sub-paragraph 4; or,
- It has four woody species on average in surveyed section(s), is adjacent to a footpath, bridleway, or byway open to all traffic (BOAT) and has two or more features from Sub-paragraph 4.

A hedgerow also qualifies as a habitat of principal importance under Section 41 of the NERC Act 2006 if it comprises greater than 80% of one or more native species. The hedgerows on the site were therefore also assessed to determine whether they qualify as a NERC Act 2006 habitat of principal importance.

Species

The site walkover included assessments to identify the potential value for legally protected or priority species at the site. This involved identifying potential habitats which support opportunities for refuge, breeding and foraging in the context of species known to be present locally and regionally.

The likelihood of occurrence is ranked as follows:

- Negligible - While presence cannot be absolutely discounted, the site includes limited or poor-quality habitat for a particular species. The site may also be outside the known national range for a species;
- Low - On-site habitat is poor to moderate quality for a given species, with few or no information about their presence from the desk study. However, presence cannot be discounted due to the national distribution of the species or the nature of on-site and surrounding habitats;
- Moderate - The on-site habitats are of moderate quality, providing most or all of the key requirements for a species. Several factors may limit the likelihood of occurrence, habitat severance, habitat disturbance and small habitat area;
- High - On-site habitat of high quality for given species. Site is within a regional or national stronghold for that particular species with good quality surroundings and good connectivity; and,
- Present - Presence confirmed from the site walkover itself or recent, confirmed records from information gathered through the desk study.

The species considered potentially relevant to the site and therefore taken into consideration included:

Amphibians

Great Crested Newt

The site walkover assessed the habitats on site for their suitability to support great crested newt (GCN) *Triturus cristatus* and/or other native amphibians, e.g. common toad *Bufo bufo*, common frog *Rana temporaria*. The aquatic and terrestrial habitats required generally include still

waterbodies suitable for breeding and woodland, scrub, or grassland habitat where there is optimal invertebrate prey potential and/or shelter.

Badger

The potential for badger *Meles meles* to inhabit or forage/commute within the site was assessed during the site walkover. Evidence of badger activity includes the identification of setts (a system of underground tunnels and nest chambers), grubbed up grassland (caused by the animals digging for earthworms, slugs, beetles etc.), badger hairs, paths, latrines/dung pits, and paw prints.

Land up to 30m from the site was also observed and assessed for signs of activity, where access was permitted/available.

Bats

The PEA considers foraging/commuting bats and roosting bats (summer/transitional and winter hibernation).

Habitats such as woodland, meadows and waterbodies can provide important foraging resources and linear features such as tree lines, hedgerows, railway, and river corridors are often considered valuable for commuting bats. The site walkover included recording the presence/assessing the suitability of the habitats and features present on the site, in combination with habitat connectivity associated with the wider landscape.

The site walkover included an external, ground-level visual assessment to identify and record Potential Roosting Features (PRFs) on buildings/structures, and a preliminary ground-level inspection of trees to identify obvious PRFs, and evaluation of habitats for foraging and commuting bat species *Chiroptera* spp. Consideration was given to the presence of features and habitats both within and adjacent the site.

Due to the extent, density, and maturity of tree cover within the site, it was not practicable to undertake a detailed Ground Level Tree Assessment (GLTA) of every individual tree. Instead, a high-level scoping assessment of the tree resource was undertaken to identify any notable features with potential to support roosting bats. Where required, further detailed assessment in the form of a GLTA is recommended to inform future works.

In accordance with the Bat Conservation Trust's (BCT) Good Practice Guidelines¹ and methods given in the CIEEM Bat Mitigation Guidelines¹⁹ consideration was given to:

- The presence, location, type, and suitability of PRFs; and
- Signs of bat activity or presence including bat sightings, audible bat chattering, droppings, stains (including grease marks and urine spatter), scratch marks, and moth/butterfly wings.

Guidance from BCT ranks bat roosting and foraging suitability on a scale through None, Negligible, Low, Moderate and High. The parameters for each of these are as follows:

- None - Relates to a site with 'no habitat features suitable for bats';
- Negligible - Relates to a site with no 'obvious habitat features likely to be used by bats';
- Low - Relates to a site with only a few roost sites that could be used by individual bats 'opportunistically,' and foraging and commuting habitat which is 'not very well connected' and only suitable to support small numbers of bats;

- Moderate - Relates to a site with potential roosting features that could be used regularly by bats but not for roosts of high conservation status, and foraging and commuting habitat which is 'continuous' and 'connected to the wider landscape;' and,
- High - Relates to a site with one or more potential roost sites that could support 'larger numbers of bats on a more regular basis and also have suitability to support high conservation status roosts, e.g. maternity roosts. High suitability foraging and commuting habitat is well connected and likely to be used regularly by bats for flight paths e.g. rivers, valleys etc and could even be connected to a roost site(s).
- PRFs can include buildings, bridges, tunnels and caves with cracks or gaps leading into voids or crevices, or trees with holes, crevices or splits of sufficient size and depth. Based on the number, location, and type of PRF(s) the buildings/structures were categorised based on the categorisations provided above.

Trees were categorised either individually or as a group using the following BCT grading system; None (same as above), Further Assessment Required (FAR), PRF-I (where PRFs are only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats), or PRF-M (where PRFs are suitable for multiple bats and may therefore be used by a maternity colony). These categories were assigned based on the preliminary ground-level inspection described above and should be treated as indicative pending further detailed assessment where required.

Birds

During the site walkover, the potential for the site to support breeding and/or non-breeding bird species was assessed. This included recording the presence/absence of areas of trees, scrub, heathland, arable and wetland habitat that could support nests or provide foraging resources for common or notable species. Consideration was also given to the presence/absence of features on-site that may support Wildlife and Countryside Act 1981 (as amended) Schedule 1 species, e.g. barn owl *Tyto alba*, black redstart *Phoenicurus ochruros*, and kingfisher *Althedo atthis*.

A re-assessment of Birds of Conservation Concern²⁰ (version 5) (BoCC5) defined rare and threatened bird species on two lists (Red and Amber) describing the level of threat to each species of concern.

'Red' is the highest conservation priority, with species needing urgent action due to either a historical decline in breeding population, severe (>50%) decline in breeding or non-breeding population, or severe decline in breeding range over 50 years or more. 'Amber' is the next most critical group, with species qualifying for this status as a result of either recovery from red list criterion, being classed as rare breeders in the UK, moderate (>25%) decline in breeding or non-breeding population or moderate decline in breeding range over 25 years or more. These categories are followed by 'Green', which indicates a species is relatively unthreatened.

Invertebrates

As part of the site walkover the quality of invertebrate habitat and the potential for the site to support notable terrestrial and aquatic invertebrate species was considered. There is a wide variety of habitats that are suitable for invertebrates including wetland, heathland, areas of bare sandy soil, ephemeral brownfield vegetation, and meadows. The diversity of the habitat structures and features present is important along with food sources for supporting specific needs/life stages/population numbers.

Species of particular interest included, but were not limited to, stag beetle *Lucanus cervus*, roman snail *Helix pomatia*, glow worm *Lampyrus noctiluca* and notable butterfly species for the region.

Dormouse

During the site walkover the potential for dormouse *Muscardinus avellanarius* to be present on site was assessed. This included observations for suitable habitat such as well-layered woodland, scrub and linking hedgerows, particularly those comprised of species offering suitable food sources such as honeysuckle *Lonicera periclymenum* and hazel *Corylus avellana*, in addition to direct evidence such as nests or characteristically gnawed hazelnuts, chewed ash keys and honeysuckle flowers.

Reptiles

The potential for widespread reptile species to use the site was assessed during the site walkover. Possible species include adder *Vipera berus*, grass snake *Natrix helvetica*, slow worm *Anguis fragilis* and common lizard *Zootoca vivipara*. These native reptile species generally require open areas with low, mixed-height vegetation, such as heathland, rough grassland, and open scrub or, in the case of grass snake, waterbody margins. Suitable well drained areas and frost-free features for hibernation are needed to survive the winter.

Other Priority/Notable Species

Where desk study data indicates the potential for presence of BAP priority species or other notable/rare species not protected by statute, effort was made to establish the potential for the site habitats to support these species during the site walkover.

Species of particular consideration included, but were not limited to, hedgehog *Erinaceus europaeus*, and brown hare *Lepus europaeus*.

Protected/Priority Plant Species

During the site walkover, presence of plant species protected under the Wildlife and Countryside Act 1981 (as amended) Schedule 8 or NERC Act 2006 Section 41 were searched for (seasonal timing allowing).

Invasive Non-native Species

During the site walkover, presence of plant and animal species listed as invasive under the Wildlife and Countryside Act 1981 (as amended) Schedule 9 were searched for. As and where appropriate to the site habitats present, these included but were not necessarily limited to, Japanese knotweed *Reynoutria japonica*, Himalayan balsam *Impatiens glandulifera*, wall cotoneaster *Cotoneaster horizontalis*.

In addition, where species that are not Wildlife and Countryside Act 1981 (as amended) Schedule 9 listed species, i.e. INNS, but which are considered to have 'invasive tendencies' were encountered, these were also recorded e.g. buddleia *Buddleja davidii*, snowberry *Symphoricarpos alba*, common horsetail *Equisetum arvense* (list not exhaustive).

3.3 SURVEYORS/COMPETENCIES

This report was written by Emer Heffernan, Consultant, who has an undergraduate degree in Geography and Information Science (BA) and an MSc in Environmental Resource Management,

with over four years' experience in ecological survey and assessment. Emer's experience spans PEAs, Biodiversity Net Gain (BNG), and species-specific surveying, with ornithology being a particular interest.

The site walkover and report review was completed by Maxine Hendy, Senior Consultant, who has a BSc (Hons) degree in Biological Sciences, and an MSc in Environmental Diagnosis and Management. Maxine has been working in environmental consultancy for 5 years, with a focus in Biodiversity Net Gain, GIS, and habitat management. She has worked across large and small projects, including transport, urban redevelopments, residential new construction, and natural habitats enhanced for biodiversity.

The report was authorised by Paul White, Associate Consultant, has a Bachelor's degree in Marine Biology (BSc Hons), a Natural England Great Crested Newt Licence and Dormouse Licence, and is an Associate member of CIEEM. Paul has over 16 years' experience in ecological surveying and has undertaken and managed numerous ecological surveys and assessments.

This report was prepared by Emer Heffernan, reviewed by Maxine Hendy, and authorised by Paul White, who confirms that the report is in line with the following:

- Represents sound industry practice;
- Reports and recommends correctly, truthfully, and objectively;
- Is appropriate given the local site conditions and scope of works proposed; and
- Avoids invalid, biased, and exaggerated statements.

3.4 CONSTRAINTS

The PEA was undertaken on 26th January 2026, which falls outside of the optimal botanical survey season (typically May to September). As such, a comprehensive assessment of plant species composition and accurate classification of habitats was limited by seasonal constraints. An updated habitat survey during the optimal growing season is therefore recommended to confirm habitat classifications and conditions for biodiversity net gain and identify any notable or invasive plant species that may not have been detectable at the time of survey. However, an assessment of the broad habitat types was possible, including their suitability to support protected species, therefore this constraint does not affect the recommendations of this report.

Areas of dense bramble scrub (h3d) were present across parts of the site and restricted access and visibility in some locations, preventing a thorough inspection of ground conditions and potential ecological features within these areas. While no evidence of protected or notable species was identified within accessible areas, it is possible that such features may be present within dense vegetation. As a precaution, a pre-clearance check of these areas by a suitably qualified ecologist is recommended prior to any vegetation removal.

4.0 RESULTS

4.1 DESK STUDY

Environmental Databases

Designated Sites

The desk study has not identified any statutory nature conservation designations associated with the site itself.

The desk study has identified three statutorily designated sites within 2km of the site. These comprise Local Nature Reserves (LNRs), namely Singlers Marsh LNR (127m), Danesbury Park LNR (90m), and Mardley Heath LNR (1.76km). These sites are listed within Table 4.1.

The desk study has identified that the site is located within the Site of Special Scientific Interest (SSSI) Impact Risk Zone (IRZ) for Singlers Marsh SSSI located 127m south.

Records received from the Hertfordshire Environmental Records Centre (HERC) did not identify any non-statutory nature conservation designations associated with the site itself. However, the desk study identified numerous non-statutory designated sites within 2km of the site, including Local Wildlife Sites, Ancient Woodland Inventory sites, a Regionally Important Geological Site (RIGS), and veteran trees. Table 4.1 below provides the locations and descriptions of the non-statutory designated sites in order of their proximity to the site.

Table 4.1 Statutory and Non-Statutory Designated Sites identified within 2km Search Radius

Site Name and Designation	Approximate Location and Direction from the Site	Description/Citation
Statutory (International Importance)		
None identified	N/A	No Ramsar sites, SACs or SPAs are present within 10km of the site.
Statutory (National / Local Importance)		
Danesbury Park Local Nature Reserve (LNR)	90m southeast	Mosaic of grassland, woodland, scrub, parkland, and pond habitats. The northern part of the site is a golf course. Areas of species-rich old semi-natural predominantly neutral grassland support species such as Cowslip <i>Primula veris</i> , Adder's-tongue <i>Ophioglossum vulgatum</i> , Pepper Saxifrage <i>Silene silaus</i> and Lady's Smock <i>Cardamine pratensis</i> in the damper grassland near the pond. The scarce Woolly Thistle <i>Cirsium eriophorum</i> has been recorded where grassland is drier and more calcareous. The historic parkland supports mature trees including old Pedunculate Oak <i>Quercus robur</i> , Ash <i>Fraxinus excelsior</i> and Wild Cherry <i>Prunus avium</i> . In the west there is an old hollow way bordered by a belt of ancient semi-natural Pedunculate Oak/Hornbeam <i>Carpinus betulus</i> woodland with a number of ancient woodland indicators in the

		ground flora. Smooth Newt <i>Triturus vulgaris</i> has been recorded from the small pond.
Singlers Marsh LNR	127m south	Former grazing pastures adjacent to the River Mimram. The southern half supports mown amenity grassland and some tall ruderal vegetation. The northern area is more ecologically interesting comprising a mosaic of habitats from tall swamp to drier areas of semi-improved to unimproved grassland. The marsh is an important area of wetland habitat in the valley and supports a colony of the locally rare Bistort <i>Persicaria bistorta</i> . The small area of old grassland retains a rich flora indicative of slightly acidic and gravelly soils with records for Meadow Saxifrage <i>Saxifraga granulata</i> , an uncommon plant in Hertfordshire. There is a spring source in the north feeding a seasonal stream which flows north-south through the site to join the River Mimram. Stands of mature trees and scrub, mainly Crack Willow <i>Salix fragilis</i> surround the spring source and line the stream.
Mardley Heath LNR	1.76km east	The site is largely on former heathland, which had progressed to old secondary Pedunculate Oak <i>Quercus robur</i> scrub/woodland, with some areas of ancient semi-natural woodland. The northern part of the site includes old, part infilled gravel workings, which became rapidly colonisation by scrub after cessation of gravel extraction. In the north-west there is ancient semi-natural Pedunculate Oak/Hornbeam <i>Carpinus betulus</i> woodland (formerly part of Ninnings Wood) with abundant Bluebell <i>Hyacinthoides non-scripta</i> . Remnant areas of heath supporting Heather <i>Calluna vulgaris</i> survive in places along with areas of old coppice woodland around the perimeter. In the extreme south there is relict ancient wood pasture with some old pollards. Sandy south facing banks, small grassy clearings and seasonal wet areas increase the habitat diversity of the site. The site is important for a range of invertebrates including uncommon species.
Non-Statutory Designated Sites		
Longston and Catchpole Woods Local Wildlife Site (LWS)	120m northeast	Part old semi-natural woodland sites (Longstone Wood and the eastern arm of Catchpole Wood), part old secondary woodland and conifer plantation (western arm of Catchpole Wood)). The semi-natural part of Catchpole Wood is ancient Pedunculate Oak <i>Quercus robur</i> /Hornbeam <i>Carpinus betulus</i> coppice-with-standards, mainly coppiced Hornbeam. Ash <i>Fraxinus excelsior</i> is also present in the canopy. The western arm of Catchpole Wood has a mix of Pedunculate Oak, Ash and planted conifers forming a high and somewhat open canopy. Hazel

		<i>Corylus avellana</i> and Hawthorn <i>Crataegus monogyna</i> occur below. The ground flora is dominated by Bluebell <i>Hyacinthoides non-scripta</i> and Dog's Mercury <i>Mercurialis perennis</i> .
Rolls Wood (Codicote) LWS	210m east	Fragments of ancient semi-natural coppiced Hornbeam <i>Carpinus betulus</i> woodland with standards and occasional Ash <i>Fraxinus excelsior</i> , Field Maple <i>Acer campestre</i> and Pedunculate Oak <i>Quercus robur</i> . The ground flora supports several woodland indicators, typically Bluebell <i>Hyacinthoides non-scripta</i> and Dog's Mercury <i>Mercurialis perennis</i> with Yellow Archangel <i>Lamium galeobdolon</i> , Wood Anemone <i>Anemone nemorosa</i> , Wood Sedge <i>Carex sylvatica</i> and Common Dog-violet <i>Viola riviniana</i> also present.
River Mimram at Singlers Marsh LWS	260m southeast	A changeable section of Mimram, initially confined by the slope on both banks creating a fairly uniform channel with mostly a large amount of silt deposited. Centrally the river changed character possibly in response to restoration, with varied flow being created through a series of meanders. Dappled with shade, it had a greater structural variation in vegetation and habitat. There had previously been islands, but these had disappeared as the river levels adjusted with the flow. The south section of the river became wider and siltier, with the decreased velocity causing the silt to drop out. This gave rise to stands of NVC S12a Branched Bur-reed <i>Sparganium erectum</i> . Swamp communities mostly on deposited silt included S5a Reed Sweet-grass <i>Glyceria maxima</i> , S6 Greater Pond-sedge <i>Carex riparia</i> , S7 Lesser Pond-sedge <i>Carex acutiformis</i> , S14a Branched Bur-reed <i>Sparganium emersum</i> , and mid-channel stands of Yellow Iris <i>Iris pseudacorus</i> . Patches of S23 Other water margin vegetation consisted of Water Mint (<i>Mentha aquatica</i>) with Fool's-watercress <i>Helosciadium nodiflorum</i> , Water Forget-me-not <i>Myosotis scorpiodes</i> , Gypsywort <i>Lycopus europaeus</i> , and where shadier Bittersweet <i>Solanum dulcamara</i> . Other elements included Common Nettle <i>Urtica dioica</i> , Great Willowherb <i>Epilobium hirsutum</i> , Purple Loosestrife, Clustered Dock <i>Rumex conglomeratus</i> , Creeping Thistle <i>Cirsium arvense</i> , Brooklime <i>Veronica beccabunga</i> , and Blue Water-speedwell <i>Veronica anagallis-aquatica</i> . Fen, mire, and tall weed communities consisted of stands of S28a Reed canary-grass <i>Phalaris arundinacea</i> , OV24a Common Nettle-Cleavers <i>Urtica dioica-Galium aparine</i> , and OV26e Great Willowherb <i>Epilobium hirsutum</i> . On banks there were narrow bands of W6 with a varied composition including Alder <i>Alnus glutinosa</i> , and Crack Willow <i>Salix x fragilis</i> . Aquatic

		vegetation was mostly limited to banks of Blunt-fruited Water-starwort <i>Callitriche obtusangula</i> .
Singlers Marsh / Fulling Mill Meadow LWS	330m southeast	Former grazing pastures adjacent to the River Mimram. The southern half supports mown amenity grassland and some tall ruderal vegetation. The northern area is more ecologically interesting comprising a mosaic of habitats from tall swamp to drier areas of semi-improved to unimproved grassland. The marsh is an important area of wetland habitat in the valley and supports a colony of the locally rare Bistort <i>Persicaria bistorta</i> . The small area of old grassland retains a rich flora indicative of slightly acidic and gravelly soils with records for Meadow Saxifrage <i>Saxifraga granulata</i> , an uncommon plant in Hertfordshire. There is a spring source in the north feeding a seasonal stream which flows north-south through the site to join the River Mimram. Stands of mature trees and scrub, mainly Crack Willow <i>Salix fragilis</i> surround the spring source and line the stream.

European Protected Species (EPS) Licences

The review of MAGIC website identified one EPS Licences granted for the destruction of a resting place for brown long eared bat *Plecotus auritus* approximately 800 metres north.

The review of MAGIC website identified two ponds within the search area that were subject to GCN habitat suitability assessments in 2019. No confirmed records of Great Crested Newt presence were returned from these surveys.

Table 4.2 Great Crested Newt MAGIC Records

Location	Distance from Site	Survey Year	HSO Category	GCN Recorded
Pond 1 - TL22951699	378m southeast	2017- 2019	Good	No
Pond 2 - TL21081732	1.21km west	2017- 2019	Average	Inconclusive

Biodiversity Action Plans/Priority Habitats and Species

The following UK BAP priority habitats³¹ were present at the site or in the immediate vicinity:

Habitats

- Coastal and floodplain grazing marsh (present within 94m south);
- Good quality semi-improved grassland (present within 224m south);
- Traditional orchard (present within 400m east);
- Ancient & Semi-Natural Woodland (present within Pittockhill Wood 1.59km southeast);
- Ancient Replanted Woodland (present within Pittockhill Wood 1.62km southeast); and,
- Wood-pasture and Parkland (present within 1.91km northwest).

Review of the Hertfordshire LBAP²¹ has identified the following habitats and species of potential relevance to the site:

- Hedgerows;
- Neutral grassland;
- Woodland; and
- Species including bats, hedgehog, and breeding birds.

Local Environmental Records Centre

Species Records

The data consultation with HERC returned records of relevance to the site relating to amphibians, badgers, bats, birds, invertebrates, protected/ notable plant species and invasive non-native species within 2km of the site.

Amphibians - Great Crested Newt

No records of great crested newt were returned by HERC.

Amphibians - Native Amphibians

HERC returned a total of 29 records for common toad within 2km of the site.

Table 4.3 Summary of most relevant native amphibians within 2km of the site

Common Name	Scientific Name	Distance/Direction from Site	Notes
Common toad	<i>Bufo bufo</i>	590m east	Eight records with a maximum count of ten individuals. The most recent record is from 2023.

Badger

Records pertaining to badgers have been redacted from this copy of the PEA.

Bats

HERC returned a total of four records with a maximum count of eleven bat species within 2km of the site.

Table 4.4 Summary of most relevant bat records within 2km of the site

Common Name	Scientific Name	Distance/Direction from Site	Notes
Bats (roosting)			
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	1.1km southeast	Two records with a maximum count of eight individuals. The most recent record is from 2021.
Bats (general activity)			

Noctule	<i>Nyctalus noctula</i>	1.9km southeast	One records with a maximum count of two individuals. The most recent record is from 2022.
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	1.1km southwest	One records with a maximum count of one individual. The most recent record is from 2020.
Deceased			
Natterer's Bat	<i>Myotis nattereri</i>	790m east	Found deceased.
Brown Long-eared Bat	<i>Plecotus auritus</i>	1.7km south	Found deceased.
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	1.9km south	Found deceased.

Birds

HERC returned a total of 7,198 records for 89 no. of bird species within 2km of the site. 13 Wildlife and Countryside Act 1981 (as amended) Schedule 1 bird species were included within the records. Nine of the records also comprised BoCC²⁰ Red listed species, 22 were BoCC Amber listed species and the remaining 45 are of BoCC Green status or unlisted. Table 4.5 below provides the summary list of bird species of relevance to the site, based on the habitat types present. Table 4.5 below does not include specific location and direction information.

Table 4.5 Summary of most relevant bird species recorded within 2km of the Site.

Common Name	Scientific Name	WCA/BoCC5 Status
Barn owl	<i>Tyto alba</i>	Schedule 1
Brambling	<i>Fringilla montifringilla</i>	Schedule 1
Crossbill	<i>Loxia curvirostra</i>	Schedule 1
Fieldfare	<i>Turdus pilaris</i>	Schedule 1
Firecrest	<i>Regulus ignicapilla</i>	Schedule 1
Hobby	<i>Falco subbuteo</i>	Schedule 1
Kingfisher	<i>Alcedo atthis</i>	Schedule 1
Lesser spotted woodpecker	<i>Dryobates minor</i>	Schedule 1
Little ringed plover	<i>Charadrius dubius</i>	Schedule 1
Peregrine	<i>Falco peregrinus</i>	Schedule 1
Redwing	<i>Turdus iliacus</i>	Schedule 1
Short-eared owl	<i>Asio flammeus</i>	Schedule 1
Whooper swan	<i>Cygnus cygnus</i>	Schedule 1
Cuckoo	<i>Cuculus canorus</i>	Red
Grey partridge	<i>Perdix perdix</i>	Red
Lapwing	<i>Vanellus vanellus</i>	Red
Lesser redpoll	<i>Acanthis cabaret</i>	Red

Skylark	<i>Alauda arvensis</i>	Red
Song thrush	<i>Turdus philomelos</i>	Red
Tree pipit	<i>Anthus trivialis</i>	Red
Willow warbler	<i>Phylloscopus trochilus</i>	Red
Yellow wagtail	<i>Motacilla flava</i>	Red
Bullfinch	<i>Pyrrhula pyrrhula</i>	Amber
Dunnock	<i>Prunella modularis</i>	Amber
Gadwall	<i>Mareca strepera</i>	Amber
Greenfinch	<i>Chloris chloris</i>	Amber
Hawfinch	<i>Coccothraustes coccothraustes</i>	Amber
House martin	<i>Delichon urbicum</i>	Amber
House sparrow	<i>Passer domesticus</i>	Amber
Kestrel	<i>Falco tinnunculus</i>	Amber
Linnet	<i>Linaria cannabina</i>	Amber
Mallard	<i>Anas platyrhynchos</i>	Amber
Mistle thrush	<i>Turdus viscivorus</i>	Amber
Reed bunting	<i>Emberiza schoeniclus</i>	Amber
Redstart	<i>Phoenicurus phoenicurus</i>	Amber
Sand martin	<i>Riparia riparia</i>	Amber
Starling	<i>Sturnus vulgaris</i>	Amber
Stonechat	<i>Saxicola rubicola</i>	Amber
Sparrowhawk	<i>Accipiter nisus</i>	Amber
Swift	<i>Apus apus</i>	Amber
Tawny owl	<i>Strix aluco</i>	Amber
Treecreeper	<i>Certhia familiaris</i>	Amber
Whitethroat	<i>Curruca communis</i>	Amber
Yellowhammer	<i>Emberiza citrinella</i>	Amber
Black-headed gull	<i>Chroicocephalus ridibundus</i>	Green
Blue tit	<i>Cyanistes caeruleus</i>	Green
Buzzard	<i>Buteo buteo</i>	Green
Canada goose	<i>Branta canadensis</i>	Green
Cetti's warbler	<i>Cettia cetti</i>	Green
Coal tit	<i>Periparus ater</i>	Green
Common gull	<i>Larus canus</i>	Green
Common sandpiper	<i>Actitis hypoleucos</i>	Green
Common tern	<i>Sterna hirundo</i>	Green
Egyptian goose	<i>Alopochen aegyptiaca</i>	Green
Goldcrest	<i>Regulus regulus</i>	Green

Goldfinch	<i>Carduelis carduelis</i>	Green
Great spotted woodpecker	<i>Dendrocopos major</i>	Green
Great tit	<i>Parus major</i>	Green
Green sandpiper	<i>Tringa ochropus</i>	Green
Green woodpecker	<i>Picus viridis</i>	Green
Grey heron	<i>Ardea cinerea</i>	Green
Grey wagtail	<i>Motacilla cinerea</i>	Green
Greylag goose	<i>Anser anser</i>	Green
Herring gull	<i>Larus argentatus</i>	Green
Lesser black-backed gull	<i>Larus fuscus</i>	Green
Little egret	<i>Egretta garzetta</i>	Green
Little owl	<i>Athene noctua</i>	Green
Mandarin duck	<i>Aix galericulata</i>	Green
Meadow pipit	<i>Anthus pratensis</i>	Green
Moorhen	<i>Gallinula chloropus</i>	Green
Mute swan	<i>Cygnus olor</i>	Green
Nuthatch	<i>Sitta europaea</i>	Green
Pied wagtail	<i>Motacilla alba yarrellii</i>	Green
Pochard	<i>Aythya ferina</i>	Green
Red kite	<i>Milvus milvus</i>	Green
Ring-necked parakeet	<i>Psittacula krameri</i>	Green
Robin	<i>Erithacus rubecula</i>	Green
Rook	<i>Corvus frugilegus</i>	Green
Sedge warbler	<i>Acrocephalus schoenobaenus</i>	Green
Shoveler	<i>Spatula clypeata</i>	Green
Siskin	<i>Spinus spinus</i>	Green
Snipe	<i>Gallinago gallinago</i>	Green
Stock dove	<i>Columba oenas</i>	Green
Swallow	<i>Hirundo rustica</i>	Green
Teal	<i>Anas crecca</i>	Green
Tufted duck	<i>Aythya fuligula</i>	Green
Wheatear	<i>Oenanthe oenanthe</i>	Green
Woodpigeon	<i>Columba palumbus</i>	Green
Wren	<i>Troglodytes troglodytes</i>	Green

Invertebrates

HERC returned a large number of invertebrate records within 2km of the site, comprising multiple species of moth and butterfly. The most frequently recorded species are summarised in Table 4.6.

Table 4.6 Summary of most relevant invertebrate records within 2km of the site

Common Name	Scientific Name	Distance/Direction from Site	Notes
Centre-barred sallow	<i>Atethmia centrargo</i>	1.06km southwest	26 records with a maximum count of four individuals. The most recent record is from 2023.
Deep-brown dart	<i>Aporophyla lueneburgensis</i>	1.06km southwest	18 records with a maximum count of four individuals. The most recent record is from 2023.
Jersey Tiger	<i>Euplagia quadripunctaria</i>	1.07km southwest	108 records with a maximum count of 71 individuals. The most recent record is from 2023.
Small heath	<i>Coenonympha pamphilus</i>	1.08km east	62 records with a maximum count of 20 individuals. The most recent record is from 2022.

Protected/Notable Plant Species

HERC returned a small number of records of protected and/or notable plant species within 2km of the site. These records are generally low in frequency and spatially distant from the site. The most relevant records are summarised in Table 4.7.

Table 4.7 Summary of most relevant protected/notable plant species records within 2km of the site

Common Name	Scientific Name	Distance/Direction from Site	Notes
Lesser Spearwort	<i>Ranunculus flammula</i>	1.3km southwest	One record with a maximum count of one individual. The most recent record is from 2016.
Welsh Poppy	<i>Papaver cambricum</i>	1.3km southwest	One record with a maximum count of one individual. The most recent record is from 2016.
Water-soldier	<i>Stratiotes aloides</i>	1.3 km southwest	One record with a maximum count of one individual. The most recent record is from 2016.
Devil's-bit Scabious	<i>Succisa pratensis</i>	1.4km southwest	One record with a maximum count of two individuals. The most recent record is from 2020.
Field Scabious	<i>Knautia arvensis</i>	1.4km southwest	Two records with a maximum count of seven individuals. The most recent record is from 2020.
Large-leaved Lime	<i>Tilia platyphyllos</i>	1.4km southwest	One record with a maximum count of one individual. The most recent record is from 2020.
Box	<i>Buxus sempervirens</i>	1.6km north	One record with a maximum count of two individuals. The most recent record is from 2018.

Whorl-grass	<i>Catabrosa aquatica</i>	1.7km northwest	One record with a maximum count of two individuals. The most recent record is from 2020.
Salix caprea subsp. sphacelata	<i>Salix caprea subsp. sphacelata</i>	1.7km northwest	One record with a maximum count of two individuals. The most recent record is from 2020.
Bluebell	<i>Hyacinthoides non-scripta</i>	1.8km northeast	One record with a maximum count of one individual. The most recent record is from 2017.
Sea-buckthorn	<i>Hippophae rhamnoides</i>	1.9km northwest	One record with a maximum count of two individuals. The most recent record is from 2020.

Invasive Non-native Species

HERC returned a total of three records of invasive non-natives species within 2km of the site.

Table 4.8 Summary of most relevant invasive non-native species records within 2km of the site

Common Name	Scientific Name	Distance/Direction from Site	Notes
Virginia-creeper	<i>Parthenocissus quinquefolia</i>	570m south	One records with a maximum count of two individuals. The most recent record is from 2023.
Himalayan Balsam	<i>Impatiens glandulifera</i>	1.8km south	Two records with a maximum count of seven individuals. The most recent record is from 2023.

Other Priority/Notable Species

HERC returned a number of records of other priority and notable species within 2km of the site, including hedgehog, a Species of Principal Importance. These records are generally low in frequency and located over 1km from the site. The most relevant records are summarised in Table 4.9.

Table 4.9 Summary of most relevant other priority/notable species records within 2km of the site

Common Name	Scientific Name	Distance/Direction from Site	Notes
Hedgehog	<i>Erinaceus europaeus</i>	1.09km south	14 records with a maximum count of one individual. The most recent record is from 2022.
Brown Hare	<i>Lepus europaeus</i>	1.35km southeast	Twelve records with a maximum count of two individuals. The most recent record is from 2021.

Stoat	<i>Mustela erminea</i>	1.79km northeast	Two records with a maximum count of five individuals. The most recent record is from 2019.
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The species referred to in the Species section are primarily those known to be in the area that may be impacted by any proposals at the site, or that stand to benefit as a consequence of potential ecological enhancements at the site and inform site-specific mitigation and enhancement recommendations described in Section 5.

4.2 SITE WALKOVER

The site walkover was carried out on 26th January 2026 by Maxine Hendy, Senior Consultant, during wet, cool weather.

The site extents and habitats are shown at Figure A.1 with site photographs presented at Appendix B.

Habitats

The habitats present across the site consisted of the following UKHab categories, as mapped in Figure A.1, and described below: Full botanical species lists were not recorded due to the timing of the survey; these will be obtained during an updated walkover survey undertaken during the optimal botanical season (May to September inclusive).

- u1b5 – Buildings;
- u1b – Developed land; sealed surface;
- g4 – Modified grassland;
- g3c – Other neutral grassland;
- h3d – Bramble scrub;
- h3h – Mixed scrub;
- h2a – Native hedgerow;
- w1g – Other broadleaved woodland; and,
- w1h – Other mixed woodland.
- 200 - Tree

u1b5 – Buildings

Several buildings are present within the central and southern parts of the site, as shown in Figure A.1 and Plate B.1 and Plate B.2. The buildings vary in size and form, comprising a cluster of structures associated with the existing site use. The buildings are generally of mixed construction and most appear to be in active or recent use. Hardstanding and access routes are present between the buildings, forming a largely developed core within the site.

Further details are provided in Section 5.2 in relation to bats below.

u1b – Developed land; sealed surface

Areas of developed land comprising hardstanding, access tracks and sealed surfaces are present throughout the central part of the site, particularly surrounding the buildings and connecting access routes. These areas are largely devoid of vegetation, with occasional ephemeral or ruderal species likely to occur in cracks and margins.

g4 – Modified grassland

Modified grassland is present in several parcels across the site, predominantly within the central and eastern areas (Plate B.). These areas are generally associated with managed or previously disturbed land surrounding the buildings.

The sward is likely to be dominated by common, disturbance-tolerant species typical of improved or semi-improved grassland, although a full species assemblage could not be confirmed due to the timing of the survey. Identified in the initial survey were yarrow *Achillea millefolium*, false oat grass *Arrhenatherum elatius*, perennial rye grass *Lolium perenne*, and autumn hawkbit *Scorzonoides autumnalis*. The grass was freshly mown with leavings removed adding additional challenge to species identification, but indicating a regular management routine, even in winter months.

g3c – Other neutral grassland

Areas of other neutral grassland are present within the northern and central parts of the site, forming a mosaic with adjacent scrub habitats.

These areas appear less intensively managed than the modified grassland and are likely to support a more diverse sward. However, detailed botanical composition could not be confirmed due to the survey being undertaken outside the optimal growing season. Species identified during the initial survey included those listed in modified grassland, probably as the two habitats are often adjacent on site, with the addition of cocksfoot *Dactylis glomerata*, broad-leaved dock *Rumex obtusifolius*, nettle *Urtica dioica*, and spear thistle *Cirsium vulgare*. The sward was varied in height and tussocky, with micro changes in elevation that created a significantly different habitat to the modified grassland.

h3d – Bramble scrub

Dense stands of bramble scrub are present within the western and southern parts of the site, and in patches throughout the central area, and often unmanaged aside from preventing encroachment. Although not the dominant habitat type, bramble often dominates the understory of woodlands on site, particularly to the north, providing limited storied diversity.

These areas are characterised by dense, often impenetrable vegetation structure, limiting access during the survey. The scrub provides structural diversity and potential shelter for fauna.

h3h – Mixed scrub

Mixed scrub is present in several areas across the site, typically associated with transitions between grassland and woodland habitats (Plate B.6).

These areas comprise a mix of shrub species and developing vegetation structure, contributing to habitat heterogeneity across the site. Most mixed scrub was formed on site when bramble scrub has been managed, allowing species such as hawthorn, blackthorn *Prunus spinosa* and dog rose *Rosa canina* to grow. This scrub is also often characterised by a nettle, spear thistle and grassland

border, clearing or understory - however the species diversity appears to be limited to these, offering fewer opportunities for foraging year-round.

w1g – Other broadleaved woodland

Areas of broadleaved woodland are present along the eastern boundary of the site (Plate B.5).

These areas comprise established tree cover forming a continuous block of woodland, providing some connectivity within the wider landscape. To the south of the site, woodland is sparse and no understory was recorded at the time of the survey. This woodland consisted mainly of sycamore maple *Acer pseudoplatanus* and hawthorn trees, with evidence of waste and human activity throughout.

To the north, woodland was again dominated by sycamore maple and hawthorn, but with bramble scrub extending into the woodland to form an understory, and unfenced access to further woodland. This woodland north of the site is limited in its extent but offers some connectivity between the habitats on site and the local flora.

w1h – Other mixed woodland

A larger area of mixed woodland is present within the northern part of the site, extending across a substantial portion of the site boundary.

This habitat comprises a mix of tree species and age classes, forming a dense woodland block. The woodland provides some ecological connectivity further into the site from the northern broadleaved woodland but structurally has been planted more densely and is almost reduced to line of trees along the site's eastern border.

Species identified were sycamore maple, likely linked to the woodland above, with the addition of densely planted non-native coniferous trees.

h2a - Native hedgerows

One hedgerow was present on site. However, due to the time of year in which the survey was completed, the onsite hedgerow could not be thoroughly surveyed, and it is advised that this is undertaken during a botanical survey between May and August. It is likely that the hedgerow extends 140 metres and has been identified as native hedgerow with trees, consisting largely of common species seen across the site such as hawthorn, blackthorn and sycamore maple.

200 - Tree

Multiple trees were identified across the site. Trees were largely non-native species of conifer, planted across the site and now appearing unmanaged. To a lesser extent, self-seeded broadleaved trees such as sycamore maple and ash *Fraxinus excelsior* were present along borders between different areas of the site, and multiple hawthorn shrubs were noted as extending up to 5 metres in height, providing much the same ecological niches as other woody species. Further botanical surveying will provide additional information regarding condition, as the survey was undertaken outside of the optimal botanical survey season.

Species

Amphibians

Great Crested Newt

No ponds or suitable aquatic habitats were identified within the site boundary that could support breeding GCN. A review of aerial imagery and desk study information identified a pond located 375m southeast of the site. Although this pond lies within the theoretical dispersal range of GCN, the site is separated from it by Codicote Road, which is considered likely to act as a barrier to amphibian movement. In addition, no clear habitat connectivity between the pond and the site was identified, and there are no suitable breeding habitats within or immediately adjacent to the site.

While areas of grassland, scrub and woodland are present within the site boundary, these habitats are not considered likely to support GCN in the absence of nearby accessible breeding habitat. Taking account of the distance to the pond, the severance caused by Codicote Road, and the lack of clear connecting habitat, the site is assessed as having negligible suitability for GCN.

No further surveys are considered necessary, and GCN are not discussed further in this report.

Native Amphibians

The desk study returned records of common toad within 590m east of the site. No ponds or suitable aquatic habitats were identified within the site boundary, and no ponds are present within 250m of the site. The nearest identified pond is located 375m southeast of the site. Although the pond and records lie within the potential dispersal range of common toad, the site is separated from these features by Codicote Road, which is considered to represent a significant barrier to amphibian movement. In addition, no clear habitat connectivity between the site and off-site waterbodies was identified.

Habitats within the site, including areas of grassland, scrub and woodland, may provide limited opportunities for foraging or shelter. However, in the absence of accessible breeding habitat and given the severance caused by the road, it is considered unlikely that common toad would be present in significant numbers or reliant on habitats within the site.

The site is therefore assessed as having negligible suitability for common toad and other amphibians, and amphibians are not discussed further in this report.

Badger

Records and survey results pertaining to badgers have been redacted from this copy of the PEA.

The site comprises a mosaic of grassland, scrub and woodland habitats, which provide some opportunities for foraging and commuting.

On this basis, the site is assessed as having low suitability for badgers. No dedicated badger surveys are currently required. However, as a precaution, any signs of badger activity should be monitored during other ecological survey visits, and a pre-commencement check should be undertaken prior to works commencing.

Bats

Foraging/Commuting

The desk study returned records of bat activity within 2km of the site, including records of common pipistrelle and other species within the local area.

The site comprises a mosaic of grassland, scrub and woodland habitats, which provide opportunities for bat foraging and commuting. Linear features such as woodland edges, scattered trees and scrub boundaries are likely to facilitate bat movement through the site and connect to the wider landscape, in particular to the north of the site and in boundary vegetation. However, the site is limited in size and therefore in the opportunities it can offer.

The river Mimram runs approximately 30 metres south of the site, offering a key habitat corridor for commuting bats. Additionally, the surrounding landscape includes semi-natural habitats which are likely to support bat activity. Artificial lighting may reduce suitability for light-sensitive species; however, more tolerant species such as pipistrelles are likely to utilise the site.

Overall, the site is assessed as having moderate suitability for bat foraging and commuting.

Roosting

An external, ground-level assessment of the buildings and trees within the site was undertaken to identify features suitable for roosting bats.

The farm shop (building B1) was identified as having multiple Potential Roosting Features (PRFs), including features such as gaps, crevices and voids associated with its structure. These features are considered suitable to support roosting bats, including potential for high conservation status roosts (e.g. maternity roosts). Given the number, type and condition of PRFs present, the building is assessed as having high suitability for roosting bats.

Trees within the site were subject to a preliminary ground-level assessment. While some trees may offer limited features, no significant PRFs suitable for roosting bats were identified at this stage. A detailed Ground Level Tree Assessment (GLTA) may be required if works are proposed to affect these features.

In accordance with current bat guidance,¹ three dusk emergence surveys are required to determine the presence or likely absence of roosting bats and to inform any necessary mitigation.

Summer/Transitional

Building B1 on site was identified to include PRFs, which could be suitable to support roosting bats (summer/transitional). Table 4.12 below illustrates these features.

Additional buildings on site consisted of temporary and mobile structures such as caravans and lodges; semi - open animal enclosures; storage structures from smaller boxes to shipping containers; a summerhouse consisting of plastic and glass; and multiple unfinished buildings, with completed flooring (appearing to be concrete poured) but incomplete walls and roofs. These were assessed as of negligible suitability for roosting bats.

Table 4.10 Building Description and PRFs

Building / Structure Reference	Description	PRF Summary	Suitability Category
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B1	Farm shop, main dwelling and storage, comprising a two-storey, gable-roofed structure with rendered masonry walls and exposed timber-style framing, showing signs of weathering and disrepair. Several openings are boarded or partially damaged. (Plate B.1 and Plate B.2)	PRFs across this building and its attached wooden structures to the rear include lifted and missing roof coverings, gaps beneath eaves, damaged soffits and fascias, cracked render, and multiple broken or boarded openings that provide sheltered voids. The weathered timber cladding, junctions between materials, and cluttered, undisturbed areas further increase crevice availability, such that PRFs are abundant and widespread; therefore, individual features were not mapped separately, and the building was reasonably assessed as having overall high suitability for roosting bats.	High
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Hibernation

The main building on site did not provide access to internal cavities that remained undisturbed throughout the winter, as access from the exterior via degraded features led directly to the interior of the building. As this space will be artificially lit and heated sporadically as required by the occupant, it does not offer suitable hibernation space. Additionally, the rear of the building, extending in wooden barn - like structures, does not feature an internal cavity.

Birds

Habitats within the site, including woodland, scrub and grassland, provide suitable nesting, foraging and shelter opportunities for a range of common breeding bird species. In particular, areas of dense scrub and woodland are likely to support nesting species such as blackbird *Turdus merula*, robin *Erithacus rubecula*, wren *Troglodytes troglodytes* and woodpigeon *Columba palumbus*.

No active bird nests were recorded during the site walkover. However, this does not preclude their presence, particularly given the timing of the survey and the extent of suitable habitat present. Desk study data returned records of common and notable bird species within the wider area, indicating that the surrounding landscape supports a typical assemblage of breeding birds.

The site is therefore assessed as having high suitability for nesting birds.

Dormice

No records of dormice were returned from consultation with HERC.

Woodland to the north of the site, which offers connectivity to a wider woodland and some understory, provides an opportunity for dormouse dispersal into the site and commuting routes

across the woodland. Although limited, there are also feeding opportunities within the scrub. Therefore, the northern woodland on site is assessed as having moderate suitability for dormice.

The southern section of woodland has no understory and evidence of human disturbance present. Additionally, the woodland is not connected to any larger parcels of woodland and does not offer opportunities for dormice to easily reach the site. Therefore, it is assessed as having low suitability for dormice.

Invertebrates

Habitats within the site, including areas of grassland, scrub and woodland, provide suitable conditions for a range of common invertebrate species. Areas of taller grassland and dense bramble scrub are likely to offer opportunities for shelter, foraging and reproduction.

Desk study data returned records of notable invertebrate species within 2km of the site, including centre-barred sallow, deep-brown dart, Jersey tiger and small heath, indicating that the wider landscape supports a diversity of invertebrate species

However, the habitats present within the site are considered to be of common and widespread type, and no features of particular importance for invertebrates (such as species-rich grassland, wetland habitats, or veteran trees with significant deadwood habitat) were identified during the site walkover.

The site is therefore assessed as having moderate suitability for invertebrates.

Reptiles

Habitats within the site, including areas of grassland, scrub and woodland, provide suitable conditions for reptiles. Areas of taller grassland and dense bramble scrub offer opportunities for basking, shelter and foraging. Desk study data did not return any records of reptiles within the immediate vicinity of the site. However, this does not preclude their presence.

The habitats on site are considered suitable to support common widespread reptile species such as slow worm, common lizard and grass snake.

The site is therefore assessed as having moderate suitability for reptiles.

Protected/Notable Plant Species

Desk study data returned records of protected and/or notable plant species within 2km of the site. However, all records are located at distances from the site and are not associated with habitats present within the site boundary.

The site comprises habitats of common and widespread type, including grassland, scrub and woodland, with no evidence of notable or protected plant species recorded during the site walkover. It is noted that the survey was undertaken outside of the optimal botanical survey season, and therefore a full assessment of species composition was not possible.

On this basis, the site is assessed as having low suitability for protected or notable plant species.

Invasive Non-native Species

Desk study data returned records of invasive non-native plant species within 2km of the site, including Virginia-creeper and Himalayan balsam.

No invasive non-native species were recorded within the site boundary during the walkover survey. However, it is noted that the survey was undertaken outside of the optimal botanical survey season, and therefore the presence of some species cannot be fully ruled out.

The site is therefore considered to have low potential to support invasive non-native species (to be confirmed by a survey within the optimal botanical season).

Other Priority/Notable Species

Hedgehog

Desk study data returned records of hedgehog within the local area. Habitats within the site, including areas of grassland and scrub, may provide limited opportunities for foraging and shelter. However, the site is not considered to provide optimal habitat and is unlikely to support a significant population. The site is assessed as having low suitability for hedgehog.

Brown Hare

Desk study data returned records of brown hare within the wider area. While areas of grassland within the site may provide limited foraging opportunities, the site is relatively enclosed and does not provide the open, expansive habitats typically preferred by this species.

The site is therefore assessed as having negligible suitability for brown hare, and the species is not considered further within this report.

Stoat

Desk study data returned records of stoat within the wider area. The site provides limited suitable habitat for this species, and any use of the site is likely to be occasional and transitory.

The site is therefore assessed as having negligible suitability for stoat, and the species is not considered further within this report.

5.0 EVALUATION

5.1 PROPOSALS

The proposed development comprises the demolition of the former Big Cat Sanctuary buildings and the construction of approximately 109 residential dwellings, with associated access roads, parking, private gardens, and areas of public open space and landscaping, as shown in the site layout drawing (Ref: 25025/P101Q) produced by OSP Architecture.²²

5.2 DISCUSSION AND RECOMMENDATIONS

The discussion is provided below on the key ecological receptors that stand to be impacted by and/or could benefit through careful design of, the proposed development. High level commentary on the recommendation for additional targeted survey, appropriate mitigation, compensation and enhancement actions is provided.

Designated Sites

Statutory/Non-statutory

The desk study identified no statutory designated sites within the site boundary. The nearest statutory sites comprise Danesbury Park LNR, located 90m southeast of the site, and Singlers Marsh LNR, located 127m south. A further statutory site, Mardley Heath LNR, is located 1.76km east of the site. The site lies within the IRZ for Singlers Marsh SSSI. However, the proposed development does not constitute any high-risk activity requiring consultation with Natural England.

During construction, standard good-practice environmental management should be implemented through a Construction Environmental Management Plan (CEMP), secured via planning condition in accordance with BS 42020:2013 Biodiversity. Measures are expected to include dust suppression (e.g. dust screens, wetting down of bare ground), appropriate storage of fuels and chemicals in line with Control of Substances Hazardous to Health (COSHH) regulations, limiting construction to daylight hours, and erection of temporary hoarding/Heras fencing to protect retained habitats.

No statutory sites of international importance (e.g. SACs, SPAs or Ramsar sites) were identified within 10km of the site. Given the scale of the proposed development, the semi-rural context, and the absence of hydrological or ecological connectivity, it is considered unlikely that the development will result in any significant direct or indirect effects on designated sites. A Habitats Regulations Assessment (HRA) is therefore not required.

The desk study also identified a number of non-statutory designated sites within 2km of the site, including LWS, areas of Ancient Woodland, and riverine habitats associated with the River Mimram. The nearest non-statutory sites include Longston and Catchpole Woods LWS (120m northeast) and Rolls Wood LWS (210m east). Given the separation distance, intervening road infrastructure including Codicote Road, and surrounding residential development, no direct or indirect impacts on these or other nearby non-statutory sites are anticipated.

Habitats

No habitats of principal importance are present within the site boundary. The site comprises predominantly modified grassland, bramble scrub, mixed scrub, areas of other neutral grassland, and woodland, alongside localised areas of developed land and buildings.

The most valuable habitats on site have been identified as the woodland to the north of the site, which offers opportunities for dormice, nesting birds, bats, and connects the site to the wider landscape. This area is currently planned to be retained, and along with the northern grassland, scrub and hedgerow to the west of the site, offer opportunities for enhancement as well as retention.

Retained trees and hedgerows will be protected during construction through the use of appropriate protective fencing. No works, storage, or ground disturbance will take place within these areas, ensuring that trees are not damaged, and their ecological value is maintained.

Within 2km of the site, priority habitats include areas of deciduous woodland, traditional orchard, and lowland meadow associated with the wider rural and semi-rural landscape surrounding Welwyn.

Biodiversity Net Gain

In accordance with the Environment Act, 2021, National Planning Policy Framework (NPPF) 2024, and local policy drivers, development proposals are required to provide a measurable net gain in biodiversity. Where a site is not exempt, the development must deliver a minimum of 10% BNG, which should be evidenced through a Biodiversity Net Gain Assessment (BNGA) using the Statutory Biodiversity Metric (SBM) as appropriate to the site and development. A separate BNGA is underway for this project.

Hedgerows

The hedgerow within the site is considered to be of local ecological value, providing habitat connectivity, foraging opportunities and nesting habitat for a range of species. The proposed development may result in the partial loss or fragmentation of the hedgerow. Where possible, the existing hedgerow should be retained and protected during construction. Any losses should be compensated through native species hedgerow planting, and all retained and newly created hedgerows should be managed appropriately to maximise biodiversity value.

Species

Badger

Habitats within the site, including areas of grassland, scrub and woodland edge, provide opportunities for badger foraging and commuting. **Records and survey findings pertaining to badgers have been redacted from this copy of the PEA.**

In accordance with the Protection of Badgers Act 1992,²³ a pre-commencement badger check should be undertaken to confirm that no setts have been established in the interim. Should a sett be identified, works must cease and appropriate mitigation and licensing will be required.

During construction, precautionary measures should be implemented, including covering or ramping excavations overnight to prevent badgers becoming trapped.

Bats

Foraging/Commuting

The site is assessed as having moderate suitability for foraging and commuting bats, associated with the presence of grassland, scrub and woodland edge habitats, which may facilitate bat movement through the site and provide foraging opportunities.

While the site does not form part of a key commuting corridor, the northern woodland and boundary vegetation to the east and west offers some connectivity to the wider landscape through adjacent semi-natural habitats which are likely to support bat activity. Common species such as common and soprano pipistrelle may utilise the site on a regular basis.

In accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines,¹ habitats assessed as having moderate suitability for foraging and commuting bats do not require further survey in the absence of significant impacts to key habitat features. Additionally, as the northern extent of the site is to be retained, it is not considered that these key habitats are directly impacted.

Potential impacts may arise through vegetation clearance and increased artificial lighting. These impacts can be mitigated through the implementation of a sensitive lighting strategy, incorporated into the CEMP.

Sensitive lighting strategy

Alterations to lighting levels on-site during both the construction and operational phases of the proposed development may stand to negatively impact established bat flight paths and foraging grounds. Whilst foraging and commuting resources for bats are not formally protected by law, their protection is a material consideration within the planning process. Suitable best practice and mitigation detailed below, provide high level recommendations for the design of wildlife friendly lighting on-site. These are based on guidance provided by the Institute of Lighting Professionals (ILP)²⁴ and BCT¹:

- Do not increase lighting levels above the current level on-site and reduce where possible;
- Use of low-UV warm-white LED bulbs (< 2,700k) with directional, downward facing and shielded lights which point away from green features such as trees, hedgerows and areas of soft landscaping;
- External lights should be subject to curfew controls where possible with lights on movement sensors on short timers (~30 seconds) to reduce light pollution when not needed;
- Green infrastructure should remain unlit, particularly between April and October, inclusive; and,
- Use of buffer planting to block light spillage into valuable areas of foraging and commuting habitat (e.g. trees).

Roosting

Summer/Transitional

The farm shop (building B1) was assessed as having high suitability for roosting bats due to the presence of multiple PRFs, including gaps, crevices and damaged features. These features are capable of supporting including day roosts, but lack the space required for maternity roosts.

While no direct evidence of bats was identified during the survey, the presence of suitable features means that roosting bats cannot be ruled out. Species such as common and soprano pipistrelle, along with other crevice-dwelling species, may utilise the building.

In accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines,¹ buildings assessed as having high suitability for roosting bats require three dusk emergence surveys to determine the presence or likely absence of roosting bats. These surveys must be undertaken between May and August (inclusive) and are scheduled to be undertaken shortly in May and June.

The results of these surveys will inform the requirement for a European Protected Species (EPS) licence and the design of any necessary mitigation.

Hibernating

The farm shop (Building B1) was assessed as having negligible suitability for hibernating bats, as it lacks suitable features such as deep crevices, stable voids, or underground elements that would provide the cool, humid and thermally stable conditions required for hibernation. The structure is relatively exposed and does not offer the consistent microclimate typically associated with hibernation sites.

With no evidence of hibernating bats or features suitable for hibernating bats identified during the survey, the building has been assessed as of negligible suitability for hibernating bats. In accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines, no further surveys for hibernating bats are considered necessary, and works can proceed with standard precautionary measures where appropriate.

Birds

Habitats within the site, including woodland, scrub and grassland, provide suitable nesting opportunities for a range of common breeding bird species. The proposed development is likely to result in the loss of nesting habitat and may cause disturbance to nesting birds during construction. However, the highest value habitat, in the northern woodland, neutral grassland, and scrub, will be retained, continuing to provide more suitable habitat as the site develops.

In accordance with the Wildlife and Countryside Act 1981 (as amended),² all wild birds, their nests and eggs are protected. As such, vegetation clearance (including trees, scrub and tall grass) must be undertaken outside of the main bird nesting season (March to August inclusive), where possible.

If works are required during the nesting season, a nesting bird check must be undertaken by a Suitably Qualified Ecologist (SQE) no more than 48 hours prior to the commencement of works within the affected areas. Any active nests identified must be retained in situ, and an appropriate buffer (typically 5m, or as advised by the SQE) established until the young have fledged. Works in these areas must not proceed until confirmation is provided by the SQE.

Dormice

Woodland habitats within the site provide some suitability for hazel dormouse, with the northern woodland assessed as having moderate suitability due to the presence of suitable structure and potential connectivity, while the southern woodland is of low suitability, lacking a well-developed understory and connectivity. The proposed development may result in the loss or fragmentation of the southern, poor suitability habitat and could cause disturbance to any dormice present during construction.

In accordance with the Wildlife and Countryside Act 1981 (as amended) ², hazel dormice and their resting places are fully protected. As such, any works affecting suitable habitat will require appropriate mitigation and, where necessary, licensing prior to commencement.

As the proposed works are limited to the removal of the southern woodland, which is of low suitability for hazel dormouse, no further surveys are considered necessary. Works should proceed under a Precautionary Method of Working (PMoW), supervised by a Suitably Qualified Ecologist (SQE), with measures such as phased vegetation clearance and sensitive working practices implemented to avoid harm to any individuals that may be present. If this plan is to change, further survey of the northern woodland may be recommended.

Invertebrates

Habitats within the site, including areas of grassland, scrub and woodland edge, provide suitable conditions for a range of common and widespread invertebrate species. The proposed development is likely to result in the loss of low-value habitat for invertebrates during site clearance. However, these habitats are common within the surrounding landscape and do not represent important or scarce invertebrate habitat.

Desk study records indicate the presence of notable invertebrate species within the wider area; however, no features of particular importance for invertebrates (such as species-rich grassland, wetland habitats, or veteran trees with significant deadwood habitat) were identified within the site.

On this basis, impacts to invertebrates are considered to be low, and no further surveys are required. Enhancement measures, such as native planting and the incorporation of structurally diverse landscaping, should be included within the scheme to provide localised biodiversity benefits.

Reptiles

The habitats present are considered suitable to support common widespread species such as slow worm *Anguis fragilis*, common lizard *Zootoca vivipara* and grass snake *Natrix helvetica*.

In accordance with Froglife guidance,^{3 4} sites assessed as having moderate suitability for reptiles require presence/absence surveys comprising a minimum of seven visits undertaken during suitable weather conditions between April and September (inclusive).

Protected Plant Species

No specific targeted surveys are required at this stage. An updated walkover survey, as outlined within Section 3.4, will confirm the presence or absence of protected or notable plant species and inform any requirement for mitigation.

Invasive Non-native Species

No specific targeted surveys are required at this stage. An updated walkover survey, as outlined within Section 3.4, will confirm the presence or absence of invasive non-native species and inform any requirement for management measures.

Other Priority/Notable Species

Hedgehog

No further surveys are required. As a precaution, good practice measures should be implemented during construction, including maintaining habitat connectivity where possible and avoiding the creation of barriers to movement (e.g. through provision of 130mm x 130mm gaps within fencing).

Ecological Enhancements

Where feasible, it is recommended that the following ecological enhancements could and should be incorporated within the site design going forward (list is not exhaustive):

Habitats

- Native species-rich planting: New planting should prioritise native species to enhance biodiversity, including species-rich hedgerows and mixed shrub planting reflective of local character.
- Species rich grassland: Creation of species rich grassland habitat, managed with a longer, varied sward, providing suitable habitat for amphibians and reptiles within the area. This habitat should provide a minimum of 8 species per m² and contain a mixture of native species including forbs and grasses (and sedges and rushes where suitable).
- Hedgerow creation: New hedgerows should comprise native species such as hawthorn, blackthorn, hazel *Corylus avellana* and field maple *Acer campestre* to provide connectivity, foraging and nesting opportunities.
- Wildflower grassland: Areas of amenity grassland should be replaced, where feasible, with species-rich wildflower grassland to enhance floral diversity and support invertebrates.
- Tree planting: Native tree planting (e.g. oak *Quercus robur*, hornbeam *Carpinus betulus*, field maple) should be incorporated to strengthen habitat connectivity and provide long-term ecological value.
- Log piles / deadwood habitat: Retention or creation of deadwood features (e.g. log piles) within landscaped areas to provide habitat for invertebrates and small mammals.

Species

- Installation of bat boxes, exact number to be determined following bat surveys, during the construction stage. Boxes should ideally comprise woodcrete for long lasting durability. Suggested box models include Schwegler 1FR,⁵ Ibstock bat boxes,⁶ or similar integrated bat bricks/tubes, installed at suitable heights on a variety of building aspects and away from excessive artificial lighting. Additional boxes may be installed on retained trees of sufficient trunk diameter where appropriate. Alternative box models to be discussed and agreed with an ecologist prior to installation. Specific siting to be set out within a Construction Environmental Management Plan (CEMP)/Landscape Ecological Management Plan (LEMP) (see below).
- Installation of approximately 1 no. integral bird box per dwelling (where feasible) during the construction stage. Boxes should ideally comprise woodcrete for long lasting durability. Target species may include house sparrow *Passer domesticus*, starling *Sturnus vulgaris* and swift *Apus apus*. Suggested box models include integrated swift bricks, sparrow terraces and general-purpose nest boxes. Full south-facing elevations should be avoided to prevent overheating of

nests during summer months. Additional boxes may be installed on retained trees of sufficient trunk diameter where appropriate. Alternative box models to be discussed and agreed with an ecologist prior to installation. Specific siting to be set out within the CEMP/LEMP.

General Recommendations

It is recommended that a CEMP should be produced and implemented for the site, providing greater detail on the mitigation measures set out above, which should be secured through planning condition in accordance with BS 42020: 2013 Biodiversity.

N.B. For guidance on the validity of reports/surveys, the CIEEM Advice Note 'On the Ecological Lifespan of Ecological Reports and Surveys'¹¹ should be referred to. This report/survey has been undertaken in March 2026 and is considered valid until March 2027.

6.0 CONCLUSION

Greengage was commissioned by Howarth Contractors Ltd in January 2026 to undertake a PEA for the site known as 'The Codicote Development', located in Codicote, Welwyn, in order to establish the ecological value of the site and its potential to support protected/priority habitats and species.

The PEA identified the following ecological constraints associated with the site:

- Presence of three statutory designated sites within 2km of the site, (Singlers Marsh LNR located 127m south, Danesbury Park LNR located 90m southeast, and Mardley Heath LNR located 1.76km east);
- The site lies within the SSSI Impact Risk Zone (IRZ) for Singlers Marsh SSSI;
- Presence of several non-statutory designated sites within 2km, including LWS, Ancient Woodland Inventory sites and a RIGS, the closest of which is Longston and Catchpole Woods LWS (located 120m northeast);
- High suitability for roosting bats associated with the farm shop (building B1);
- Moderate suitability for bat foraging and commuting associated with grassland, scrub and woodland edge habitats;
- High suitability for nesting birds associated with on-site habitats;
- Moderate suitability for dormice in the northern woodland habitat, and poor suitability for dormice in the southern woodland habitat;
- Moderate suitability for invertebrates associated with grassland, scrub and woodland habitats;
- Moderate suitability for reptiles associated with areas of grassland, scrub and woodland edge;
- Low suitability for protected/notable plant species;
- Low potential for invasive non-native species; and,
- **Records and survey findings pertaining to badgers have been redacted from this copy of the PEA.**

Targeted surveys are required for bats and reptiles. The farm shop (building B1) has been assessed as having high suitability for roosting bats and therefore, in accordance with Bat Surveys for Professional Ecologists,¹ three dusk emergence surveys must be undertaken between May and August (inclusive) to determine the presence or likely absence of roosting bats and to inform any mitigation and licensing requirements.

Given the moderate suitability of habitats for reptiles, presence/absence surveys are required in accordance with Froglife^{3 4} guidance to determine the presence of reptiles and to inform appropriate mitigation measures.

No further targeted surveys are required for other ecological receptors. An updated walkover survey, including a botanical survey undertaken during the optimal growing season (May to September inclusive) (as outlined within Section 3.4), will be carried out to confirm habitat types and condition, and the presence or absence of protected or notable plant species and invasive non-native species.

Key mitigation, compensation and enhancement actions have been recommended to enable legislative and policy compliance (see context at Appendix C).

Key actions should be secured through the implementation of a Construction Environmental Management Plan (CEMP) and, where required, a Landscape and Ecological Management Plan (LEMP), which may be secured by planning condition.

A recommendation has been made for a separate BNGA report, using the Statutory Biodiversity Metric (SBM), in accordance with the Environment Act 2021, NPPF 2024, and local policy drivers.

N.B. For guidance on the validity of reports/surveys, the CIEEM Advice Note 'On the Ecological Lifespan of Ecological Reports and Surveys' should be referred to. This report/survey has been undertaken in March 2026 and is considered valid until March 2027.

APPENDIX A UKHAB MAP

Figure A.1 UKHAB Map

APPENDIX B SITE PHOTOGRAPHS



Plate B.1 Main farm building on-site (B1), showing mixed construction and potential features suitable for bats.



Plate B.2 Rear elevation of main farm building on-site (B1), showing timber cladding and potential roosting features.



Plate B.3 Areas of disturbed grassland used for storage, with associated materials and enclosed features



Plate B.4 Access track with adjacent disturbed grassland and scattered debris along building edges, providing limited sheltering opportunities for fauna.



Plate B.5 Area of broadleaved woodland along the eastern boundary of the site, leading to northern woodland



Plate B.6 Unmanaged broadleaved woodland with dense understorey vegetation to the north of the site



Plate B.7 Southern woodland, with evidence of disturbance and lack of understory



Plate B.8 Modified grassland in the northwestern part of the site, with adjacent buildings and boundary vegetation.



Plate B.9 Stables onsite, constructed of timber with open bays.



Plate B.10 Paddock area of heavily disturbed ground associated with livestock use, with adjacent stables and fencing.



Plate B.11 Scattered trees within an area of disturbed ground along the site boundary, adjacent to mixed scrub with hawthorn trees forming boundary of paddock.

APPENDIX C RELEVANT LEGISLATION AND POLICY

C.1 LEGISLATION

Current key legislation relating to ecology includes the Environment Act 2021,⁷ Wildlife and Countryside Act 1981 (as amended),² The Conservation of Habitats and Species Regulations 2019 ('Habitats & Species Regulations')²⁵, The Countryside and Rights of Way Act 2000 (CRoW Act)²⁶, and The Natural Environment and Rural Communities Act, 2006.¹⁶

The Environment Act, 2021

Under the Environment Act,⁷ 2021, as of 12th February 2024 and 2nd April 2024, it is mandatory in England for new developments (with a small number of exceptions) to deliver a minimum 10% biodiversity net gain (BNG), as measured by the Statutory Biodiversity Metric or Small Sites Metric (SSM) respectively, secured through planning condition as standard (as per schedule 14 of the Act). Approach to the delivery of BNG must follow the mitigation hierarchy, with avoidance of impact and on-site compensation/gains prioritised, ahead of the use of off-site compensation, or the purchase of statutory credits.

The Act introduces the condition that no development may begin unless a Biodiversity Gain Plan (BGP) has been submitted and approved by the LPA.

The Act also amends requirements of the NERC Act, 2006, adding the need to not just conserve, but enhance biodiversity through planning projects. Furthermore, it introduces the need for the LPA to have regard to relevant local nature recovery strategies and relevant species/protected site conservation strategies, when making their decision.

Under the Act, the enhancements must be maintained for at least 30 years.

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

The Conservation of Habitats & Species Regulations replace The Conservation (Natural Habitats, etc.) Regulations 1994 (as amended)²⁷, and transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('EU Habitats Directive')²⁸, and Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive')²⁹ into UK law (in conjunction with the Wildlife and Countryside Act).

Regulation 43 and 47 respectively of the Conservation of Habitats & Species Regulations makes it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2 (European protected species of animals), or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 5 (European protected species of plant). Development that would contravene the protection afforded to European protected species requires a derogation (in the form of a licence) from the provisions of the Habitats Directive.

Regulation 63 (1) states: 'A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which —

(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects); and

(b) is not directly connected with or necessary to the management of that site;

must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.'

Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) is the principal mechanism for the legislative protection of wildlife in Great Britain. This legislation is the means by which the Convention on the Conservation of European Wildlife and Natural Habitats³⁰ (the 'Bern Convention') and the Birds Directive and EU Habitats Directive are implemented in Great Britain.

The Countryside and Rights of Way Act 2000

The Wildlife and Countryside Act has been updated by the CRoW Act. The CRoW Act amends the law relating to nature conservation and protection of wildlife. In relation to threatened species it strengthens the legal protection and adds the word 'reckless' to the offences of damaging, disturbing, or obstructing access to any structure or place a protected species uses for shelter or protection, and disturbing any protected species whilst it is occupying a structure or place it uses for shelter or protection.

The Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities Act 2006 states that every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. Biodiversity Action Plans provide a framework for prioritising conservation actions for biodiversity.

Section 41 of the Natural Environment and Rural Communities Act requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity. The list, a result of the most comprehensive analysis ever undertaken in the UK, currently contains 1,149 species, including for example, hedgehog (*Erinaceus europaeus*), and 65 habitats that were listed as priorities for conservation action under the now defunct UK Biodiversity Action Plan³¹ (UK BAP). Despite the devolution of the UK BAP and succession of the UK Post-2010 Biodiversity Framework³² (and Biodiversity 2020 strategy³³ in England), as a response to the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020 and EU Biodiversity Strategy (EUBS)³⁴, this list (now referred to as the list of Species and Habitats of Principal Importance in England) will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 41 of the Natural Environment and Rural Communities Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions.

Biodiversity Action Plans

Non-statutory Biodiversity Action Plans (BAPs) have been prepared on a local and regional scale throughout the UK over the past 15 years. Such plans provide a mechanism for implementing the government's broad strategy for conserving and enhancing the most endangered ('priority') habitats and species in the UK for the next 20 years. As described above the UK BAP was succeeded in England by Biodiversity 2020 although the list of priority habitats and species remains valid as the list of Species of Principal Importance for Nature Conservation.

Regional and local BAPs are still valid however and continue to be updated and produced.

Detail on the relevant BAPs for this site are provided in the main text of this report.

Legislation Relating to Natura 2000 Sites and Habitats Directive Annex I/II Species

European Commission Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('EU Habitats Directive'), and Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive') form the cornerstones of nature conservation legislation across EU member states. Priority species requiring protection across Europe are listed in the Annexes of these Directives. Regulation 63(1) of the Conservation of Habitats and Species Regulations 2019 and Offshore Marine Conservation Regulations, 2007 (as amended) transpose these directives into UK law and set the basis for the designations of protected sites (known as Natura 2000 sites; Special Areas of Conservation under the Habitat Directive and Special Areas of Protection under the Birds Directive) that are of importance for habitats, species or assemblages listed on the directive Annexes. In the UK Ramsar sites are also offered the same level of protection as SPAs and SACs however the qualifying species for the designation may differ; Ramsar sites being designated specifically as important wetland habitats.

Under article 6(3) of the Habitats Directive, where projects stand to have likely significant effect (in accordance with the European Court of Justice ruling of C-127/02 Waddenzee cockle fishing) upon the integrity of conservation objectives (i.e. conservation status of the qualifying species or habitats) within the designated sites then the Competent Authority must undertake an Appropriate Assessment.

Legislation Relating to Badger

Badgers and their setts are protected under the Protection of Badgers Act 1992, an Act which consolidated and strengthened previous legislation, including the Badgers (Further Protection) Act 1991, the Badgers Act 1991 and the Badgers Act 1973. In England and Wales, it is an offence to:

- Wilfully kill, injure or take a badger;
- Attempt to kill, injure or take a badger;
- Cruelly ill-treat a badger;
- Dig for a badger;
- Intentionally or recklessly damage or destroy a badger sett, or obstruct access to it;
- Cause a dog to enter a badger sett; or
- Disturb a badger when it is occupying a sett.

A licence may be obtained from the appropriate authority (Natural England or Natural Resources Wales) to carry out any activities prohibited by the Act, subject to the conditions of the licence being adhered to.

Legislation Relating to Bats

All UK bats and their roosts are protected by law. Since the first legislation was introduced in 1981, which gave strong legal protection to all bat species and their roosts in England, Scotland and Wales, additional legislation and amendments have been implemented throughout the UK.

Six of the 18 British species of bat have Biodiversity Action Plans (BAPs) assigned to them, which highlights the importance of specific habitats to species, details of the threats they face and proposes measures to aid in the reduction of population declines.

Although habitats that are important for bats are not legally protected, care should be taken when dealing with the modification or development of an area if aspects of it are deemed important to bats such as flight corridors and foraging areas.

The Wildlife & Countryside Act 1981 (WCA) was the first legislation to provide protection for all bats and their roosts in England, Scotland and Wales (earlier legislation gave protection to horseshoe bats only.)

All eighteen British bat species are listed in Schedule 5 of the Wildlife and Countryside Act, 1981 and under Annexe IV of the Habitats Directive, 1992 as a European protected species. They are therefore fully protected under Section 9 of the 1981 Act and under Regulation 43 of the Conservation of Habitats and Species Regulations 2019, which transposes the Habitats Directive into UK law. Consequently, it is an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; and
- Intentionally or recklessly obstruct access to a bat roost.

Legislation Relating to Birds (Nesting)

Nesting birds, with certain exceptions, are protected from intentional killing, destruction of nests and destruction/taking of eggs under the Wildlife and Countryside Act 1981 (as amended) and the CROW Act. Any clearance of dense vegetation should therefore be undertaken outside of the nesting bird season, taken to run conservatively from March to August (inclusive), unless an ecologist confirms the absence of active nests prior to clearance.

Legislation Relating to Reptiles

All species of reptile native to the UK are protected to some degree under national and/or international legislation, which provides mechanisms to protect the species, their habitats and sites occupied by the species.

Sand lizards and smooth snakes are European protected species and are afforded full protection under Section 9 of the Wildlife and Countryside Act 1981 and Regulation 43 of the Conservation of Habitats and Species Regulations 2019. However, these species are rare and highly localised. Their occurrence is not considered as relevant in this instance, as the ranges and specialist habitats of these species do not occur at this site.

The remaining widespread species of native reptiles (adder, grass snake, slow worm and viviparous lizard) are protected under part of Section 9(1) and all of Section 9(5) of the Wildlife and Countryside Act 1981. They are protected against intentional killing and injury and against sale, transporting for sale etc. The habitat of these species is not protected. However, in terms of development, disturbing or destroying reptile habitat during the course of development activities while reptiles are present is likely to lead to an offence under the Wildlife and Countryside Act 1981. It is therefore important to identify the presence of these species within a potential

development site. If any of these species are confirmed, all reasonable measures must then be taken to ensure the species are removed to avoid the threat of injury or death associated with development activities.

Each species of native reptile has specific habitat requirements but general shared features include a structurally diverse habitat that provides for shelter, basking, foraging and hibernating.

All reptiles are BAP species and as such are also of material consideration in the planning process due to the NPPF.

Legislation Relating to Protected/Priority Plant Species

For plant species that are listed in Schedule 5 of the Conservation of Habitats and Species Regulations 2017, it is an offence to:

- deliberately pick, collect, cut, uproot or destroy them
- possess, control or transport them (alive or dead)

A granted mitigation licence is required to carry out any of the above actions for any plant that is an EPS.

For plants, fungi and lichens protected under the Wildlife and Countryside Act 1981, it is an offence to:

- intentionally uproot any wild plant without the landowner's consent.

For plants, fungi and lichens listed in Schedule 8 of the Wildlife and Countryside Act 1981, it is an offence to:

- intentionally pick, uproot or destroy them.

A granted mitigation licence is required to carry out proposed activities.

Many plants, fungi and lichens are also listed as rare or most threatened species under Section 41 of the NERC Act 2006. Regard must be had for the conservation of Section 41 species as part of planning decisions.

Legislation Relating to Invasive Non-native Species

Section 14 of the Wildlife and Countryside Act 1981 (as amended) prevents the release into the wild of certain plants and animals which may cause ecological, environmental or socio-economic harm. It prohibits the introduction into the wild of any animal of a kind which is not ordinarily resident in, and is not a regular visitor to, Great Britain in a wild state, or any species of animal or plant listed on Schedule 9 of the Act. In the main, Schedule 9 lists non-native species that are already established in the wild, but which continue to pose a conservation threat to native biodiversity and habitats, such that further releases should be regulated. The Schedule also includes some native species (for example barn owl) in order to provide a level of control to ensure that releases, in particular reintroduction programs, are carried out in an appropriate manner and biodiversity is properly safeguarded.

C.2 PLANNING POLICY

National

National Planning Policy Framework

The National Planning Policy Framework (NPPF) 2024³⁵ sets out the Government's planning policies for England, including how plans and decisions are expected to apply a presumption in favour of sustainable development. Chapter 15 of the NPPF focuses on conservation and enhancement of the natural environment, stating plans should 'identify and pursue opportunities for securing measurable net gains for biodiversity'.

It goes on to state: 'if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.' Alongside this, it acknowledges that planning should be refused where irreplaceable habitats such as ancient woodland are lost.

Regional

The Hertfordshire LBAP²¹ (Hertfordshire Biodiversity Partnership, 2006) identifies priority habitats and species for conservation across the county, including hedgerows, neutral grassland and woodland, as well as species such as bats, hedgehog and farmland birds.

Development proposals are expected to contribute to the conservation and enhancement of these habitats and species where relevant.

Local

The site falls within the jurisdiction of North Hertfordshire District Council and is therefore subject to the North Hertfordshire Local Plan 2011–2031.³⁶

Key policies of relevance include:

- Policy NE1: Landscape – seeks to conserve and enhance the natural and scenic qualities of the district's landscapes.
- Policy NE4: Green Infrastructure – requires development to protect and enhance green infrastructure networks and ecological connectivity.
- Policy NE5: Biodiversity and Geological Sites – requires development to minimise impacts on biodiversity, protect designated sites and priority habitats/species, and deliver biodiversity net gain.

These policies support the protection of ecological features on site and require appropriate mitigation, enhancement and compensation measures where impacts cannot be avoided.

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