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Client: British Land

Project: Land at South Trumpington

Report: Preliminary Ecological Appraisal

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1.0 EXECUTIVE SUMMARY

Greengage Environmental Ltd was commissioned to undertake a Preliminary Ecological Appraisal (PEA) by British Land of a Site known as Land at South Trumpington in Cambridge.

This PEA has been prepared on behalf of British Land in support of the Greater Cambridge Local Plan 'Regulation 18 Consultation' exercise.

This survey aimed to establish the ecological value of this Site and the potential presence of legally protected species to inform appropriate mitigation, compensation, and enhancement actions in light of proposed development works.

The survey area extends to approximately 30.1 hectares and comprises arable fields, modified grassland, other neutral grassland, mixed scrub, lines of trees, hedgerows, and urban developed and bare ground.

The survey and desk top study have identified that the Site hold potential to support a range of protected species including;, badger, bats, reptiles, otter, breeding birds, and three Biodiversity Action Plan (BAP) species, and further surveys have been recommended where appropriate. A non-statutory designated site lies 230m to the north of the survey area and forms an important corridor for wildlife through the landscape.

Any future proposed development of the Site has the risk of impacting habitat for the refuge, foraging, and breeding for multiple species, which will need to be mitigated as any master planning progresses. If protected species are confirmed to be present on-site, mitigation would be developed which could include measures such as habitat creation, translocation or timing of construction activities in respect of seasonality constraints, e.g. breeding bird season. Where relevant, European Protected Species Licences will be obtained from Natural England.

Further surveys have been recommended to determine how development of the Site may impact upon protected species and the nearby designated sites. Precautionary Method of Works (PMoW) have been recommended to aid in the avoidance of disturbing protected species that may be present within the Site. The inclusion of measures to limit noise, dust, light, and pollution resulting from the development within a CEMP will aid in limited the indirect impacts the development may have on important corridor habitats.

It is anticipated that ecology enhancements will be been designed into the masterplan, and further recommendations include bird and bat boxes, and the creation of hedges, green roofs, mixed native shrub planting and wildflower grassland creation.

2.0 INTRODUCTION

Greengage Environmental Ltd (Greengage) was commissioned to undertake a Preliminary Ecological Appraisal (PEA) by British Land (BL) South Camb Limited of a site known as Land at South Trumpington in Cambridge, hereby referred to as the Site.

This PEA has been prepared on behalf of British Land in support of the Greater Cambridge Local Plan 'Regulation 18 Consultation' exercise.

The promoter, British Land, owns the Site at South Trumpington, Cambridge and are committed to promoting the Site through the emerging Greater Cambridge Local Plan.

British Land have a strong reputation of delivering state-of-the-art developments, in the best strategic locations, built and managed to British Land's industry-leading standards. They do this by bringing together their unique expertise in the delivery of complex developments, as well as their award-winning sustainability practices.

The submission, which this document forms part of, demonstrates that the Site is suitable, achievable, and deliverable for allocation and, ultimately, development, subject to future planning permission(s).

This survey aimed to establish the ecological value of this site and the potential presence of legally protected species to inform appropriate mitigation, compensation, and enhancement actions for the Site.

2.1 SITE DESCRIPTION

The Site comprises a single parcel of agricultural land separated into smaller parcels by existing hedgerows and extends to approximately 30.1 hectares. The Site is also dissected by a cycle path that links Trumpington to the village of Harston to the south.

The Site is relatively flat, with a gentle fall west to east, but can appear to raise when looking eastwards from the west/northwest edges of the site.

The Site is located to the southwest of Cambridge City Centre. Land to the west of the Site forms Trumpington Meadows Country Park. To the south is the M11, beyond which is currently agricultural but is the site of the South West Travel Hub (SWTH) facility. To the east is the A1309 Hauxton Road, and land further east is also in agricultural use. To the north is the development of Trumpington Meadows, which continues to be developed. Part of the Site is currently used as construction welfare/ logistics associated with Trumpington Meadows.

3.0 METHODOLOGY

The PEA was undertaken in accordance with guidance in the UK Habitat Classification System (UKHab)[1] and the Chartered Institute of Ecological and Environmental Management (CIEEM) (2017) Guidelines for Preliminary Ecological Appraisal[2], in accordance with BS42020:2013: Biodiversity[3]. The overall assessment consisted of:

- Site specific biological information gained from statutory and non-statutory consultation; and
- A site walkover, protected species scoping assessment and UKHAB habitat survey.

The site-specific consultation provided the ecological context for the site survey carried out on the 7th May 2024.

The survey boundary and existing site is shown at Figure A.1.

Greengage undertook the site walkover during dry and sunny weather conditions. Features within the Site boundary and accessible features immediately bordering it were evaluated and the extent and distribution of habitats and plant communities were recorded and supplemented with target notes on areas or species requiring further commentary. Fauna using the area were recorded and areas of habitat suitable for statutorily protected species were identified where present, with an active search carried out for evidence of such use.

3.1 DESK TOP REVIEW

A review of readily available ecological information and other relevant environmental databases (included Defra's Multi-Agency Geographic Information for the Countryside (MAGIC) website[4]) was undertaken for the Site and its vicinity. In addition, biological records search from Cambridgeshire and Peterborough Environmental Record Centre (CPERC) were reviewed to identify the location and citations of local non-statutory designated sites and presence of records for notable and protected species. This provided the overall ecological context for the Site, to better inform the UKHAB Survey.

3.2 ON SITE SURVEYS

Flora

The extent and distribution of different habitats on Site were identified and mapped according to the standard UKHAB Survey methodologies, supplemented with target notes describing the dominant botanical species and any features of interest. Any present protected plant species and invasive/non-natives were also noted. A habitat map has been produced to illustrate the results, as shown at
Figure A.1

Fauna

The PEA Survey specifically included assessments to identify the potential value for notable, rare, and protected species at the Site. This involved identifying potential habitats in terms of refugia, breeding sites and foraging areas 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 very 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 desk top 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 for the survey itself or recent, confirmed records from information gathered through desk top study.

The species surveyed for included:

Badger (*Meles meles*)

The potential for badger to inhabit or forage within the study area was assessed. Evidence of badger activity includes the identification of setts (a system of underground tunnels and nesting chambers), grubbed up grassland (caused by the animals digging for earthworms, slugs, beetles etc.), badger hairs, paths, latrines, and paw prints.

Bat Species (*Chiroptera*)

The site visit was undertaken in daylight and the evaluation of bat potential comprised an assessment of natural features on Site that aimed to identify characteristics suitable for bat roosts, foraging and commuting. In accordance with Bat Conservation Trust's Good Practice Guidelines[5] and methods given in English Nature's (now Natural England) Bat Mitigation Guidelines[6] consideration was given to:

- The availability of access to roosts for bats;
- The presence and suitability of crevices and other places as roosts; and
- Signs of bat activity or presence.

Definite signs of bat activity were taken to be:

- The bats themselves;
- Droppings;
- Grease marks;
- Scratch marks; and
- Urine spatter.

Signs of possible bat presence were taken to be:

- Stains; and

- Moth and butterfly wings.

Features with potential as roost sites include mature trees with holes, crevices, or splits (the most utilised trees being oak, ash, beech, willow, and Scots pine), caves, bridges, tunnels and buildings with cracks or gaps serving as possible access points to voids or crevices.

Additionally, linear natural features such as tree lines, hedgerows and river corridors are often considered valuable for commuting and semi-natural habitats such as woodland, meadows and waterbodies can provide important foraging resources. Consideration was given to the presence of these features both immediately within and adjacent to the assessment area.

Great Crested Newt (*Triturus cristatus*)

An assessment was carried out to identify any potential habitats that may support great crested newt (GCN) and other native amphibians. The aquatic and terrestrial habitats required generally include small, still ponds or water bodies suitable for breeding; and woodland or grassland areas where there is optimal invertebrate prey potential.

Reptiles

The potential for reptile species on Site was assessed during the walkover survey. Possible species include grass snake (*Natrix natrix*), smooth snake (*Coronella austriaca*), adder (*Vipera berus*), common and sand lizard (*Lacerta vivipara* and *L. agilis*) and slow worm (*Anguis fragilis*). 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 and frost-free areas are needed so they can survive the winter.

Hazel Dormouse (*Muscardinus avellanarius*)

During the walkover survey the potential for dormouse 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 and hazel, in addition to direct evidence such as characteristically gnawed hazelnuts, chewed ash keys and honeysuckle flowers, or nests.

Water Vole (*Arvicola amphibius*)

Water vole potential was assessed during the walkover survey. The potential is identified by the presence of ditches, rivers, dykes and lakes with holes and runs along the banks. Latrines, footprints or piles of food can also be noted.

Otter (*Lutra lutra*)

Where desktop review or consultation indicates the presence of otter in a river catchment, the presence of water bodies with good cover and potential holt (den) sites would be noted. Spraint, footprints, or food remains can also be noted.

Birds

During the walkover survey, the potential for breeding, wintering and migratory birds was assessed. This includes areas of trees, scrub, heathland, and wetlands that could support nests for common or notable species.

Invertebrates

As part of the walkover survey the quality of invertebrate habitat and the potential for notable terrestrial and aquatic invertebrate species was considered. There is a wide variety of habitats suitable for invertebrates including wetland areas, heathland, areas of bare sandy soil, ephemeral brownfield vegetation and meadows.

Biodiversity Action Plan priority species/ Species of Principal Importance

Where consultation and desk-study indicate the presence of BAP priority species (Species of Principal Importance) not protected by statute, effort was made to establish the potential for the Site to support these species.

3.3 SURVEYORS

Molly Dailide, who undertook the site survey, has a degree in Ecology and Conservation (Hons), an MSc in Biodiversity Conservation and is a Full member of CIEEM with over 9 years' experience in ecological survey and assessment. Molly holds a Natural England Great Crested Newt Licence and a FISC level 4 in botanical identification.

Fern Oscroft, who prepared this report, has an undergraduate degree in Conservation Biology (BSc Hons) and is a Qualifying member of CIEEM. Fern has over three years' experience in the commercial sector. Her experience spans terrestrial environments, with Preliminary Ecological Appraisal and Biodiversity Net Gain (BNG) being a particular interest.

Helen Bradshaw, Principal, who reviewed this report, has a degree in Geography (BSc Hons) and 17 years' experience as an ecologist. She spent over a decade as a Local Authority Ecologist and holds class survey licences for both bats and GCN. She has held bat mitigation licences and worked on monitoring schemes for both bats and GCN. Helen is Chair of her local badger group and has worked extensively on badger surveying and monitoring as well as delivering badger vaccination schemes for 8 years. She holds a position as a charity trustee for the Cheshire Local Records Centre.

Paul White, who verified this report, 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.

The site survey was undertaken by Molly Dailide, the report was written by Fern Oscroft and reviewed and verified by Helen Bradshaw and Paul White who confirm in writing (see the QA sheet at the front of this report) 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 during an optimal time of year during ideal conditions by a suitably qualified ecologist. It was possible to access all areas of the Site.

Due to the timing of the survey, some of the scrub and hedgerow vegetation within the Site was very dense and therefore a full inspection could not be carried out in regard to badger presence.

4.0 RESULTS

4.1 DESK TOP REVIEW

Designations

Consultations with the local biological record centres, Cambridgeshire and Peterborough Environmental Records Centre (CPERC) and the MAGIC dataset have confirmed that there are no statutory designations of national or international importance within the boundary of the Site.

There are, however, eleven Statutory wildlife sites within a 5km radius. These included Local Nature Reserves (LNRs) and Sites of Special Scientific Interest (SSSI).

Records from CPERC also identified ten non-statutory sites (County Wildlife Sites, and City Wildlife Sites) within 2km of the site boundary. These are recognised by LPAs as important wildlife sites.

The Site lies within a SSSI Risk Zone, however, this only pertains to developments involving livestock or combustion processes, and therefore does not impact upon the proposed development.

Table 4.1 below gives the locations and descriptions of a selection of the nearest/most relevant local designations.

Table 4.1 Statutory and Non-Statutory Designated Sites within Search Radius

Site Name	Approximate Location	Description
Statutory Designations		
Byron's Pool LNR	800m north	Broadleaf woodland next to the River Cam. Site management includes gradually removing non-native species e.g. sycamore from the woodland. A number of small ponds are managed for amphibians. Birds include kingfishers (*Alcedo atthis*), grey wagtails (*Motacilla cinerea*), woodpeckers (*Picus sp.*) and little grebe (*Tachybaptus ruficollis*). Other wildlife includes frogs (*Rana temporaria*), speckled wood butterflies (*Pararge aegeria*), dragonflies (*Libellula sp.*) and damselflies (*Enallagma cyathigerum*).
Nine Wells LNR	2.5km east	Several chalk springs, which form the source of the Hobson Conduit. Nine Wells once contained some rare freshwater invertebrates, however following the drought of 1976 these were lost. Today the chalk watercourses are being managed with the aim of re-creating the conditions favourable for a possible re-introduction of these rare species.
Paradise LNR	3.2km north	Broadleaf woodland contains a central marsh area, wet woodland and a number of riverside mature willows. Notable species include Butterbur (*Petasites hybridus*), which was first recorded over 400 years ago and the rare Musk beetle (*Aromia m. moschata*), which favours wet

Site Name	Approximate Location	Description
		woodland tree species such as willows in which to lay its eggs.
Sheep's Green and Coe Fen LNR	3.4km north	Other neutral grassland. There are some clumps of bramble and other shrubs and hedges adding structural variation, shelter and a food source for birds, small mammals, and insects.
Barrington Chalk Pit SSSI	4.1km west	This large quarry has long been noted as the last remaining exposure of the famous Cretaceous 'Cambridge Greensand'. The Greensand is essentially a remanie comprising rolled phosphatic nodules and fossils in a glauconitic chalky matrix. The fauna at Barrington includes brachiopods and fish teeth, but elsewhere in the region the Cambridge Greensand was formerly known as a source of fossils, especially vertebrate remains
Gog Magog Golf Course SSSI	4.4km east	This site supports grassland communities of the calcareous chalk grassland type. Such grasslands are geographically restricted to scattered areas throughout south, central and eastern England where the influence is not suppressed by overlying drift. Traditionally the chalk grasslands are sheep grazed but a changing economy has led to the loss of many under arable and scrub encroachment.
Cherry Hinton Pit SSSI	4.8km northeast	The chalk grassland is dominated by the grass upright brome (*Bromus erectus*) and holds a number of the nationally rare plants as well as typical chalkland species such as wild thyme (Thymus praecox), yellow-wort (*Blackstonia perfoliata*) and kidney vetch (*Anthyllis vulnerari*).
The Beechwoods LNR	4.8km east	A small wood of majestic beeches (Fagus sylvatica) on a chalk ridge above Cambridge which was planted in the 1840s. Local people planted a new plantation of broadleaved trees in 1992. Wildlife includes white helleborine orchid (*Cephalanthera damasonium*), beech trees, fungi, great spotted (*Picus major*) and green woodpeckers (*Picus viridis*), nuthatch (Sitta europaea), spotted flycatcher (*Muscicapa striata*). In good beech-mast crop years large flocks of bramblings (*Fringilla montifringilla*) gather to eat the beech-mast.
Dernford Fen SSSI	5km southeast	This site represents a relic of a much larger area of rough fen and carr. These habitat types are now rare in the county and in eastern England as a whole. The vegetation ranges from dry grassland and scrub to relic fen, reedbed and alder carr.

Site Name	Approximate Location	Description
Whittlesford-Thriplow Hummocky Fields SSSI	5km south	Fields at Whittlesford and Thriplow have a combination of local topography and agricultural practice which provides a suitable habitat for the nationally rare species grass poly (*Lythrum hyssopifolia*). This species is now confined in mainland Britain to a small area of south Cambridgeshire where it occurs locally in shallow depressions in arable fields, together with a number of scarce bryophytes. The occurrence of the nationally uncommon fairy shrimp (*Chirocephalus diaphanus*), in some of the hollows, adds to the importance of the site.
Roman Road SSSI	5.8km east	The Roman Road supports species-rich calcareous grassland communities of a type which was once widespread on the chalk areas of lowland England and which is now scarce due to changes away from the traditional sheep grazing economy of these areas to arable. Thick hedgerows and small copses along this 'green lane' enhance the value of the grassland for invertebrates
Non-Statutory Designations		
River Cam	230m north	The river is designated for not being grossly modified and relatively good water quality. The river had good adjacent semi-natural habitats which are included within its' designation, including pollarded mature willows.
Old Mill Plantation	800m north	A woodland of over 1ha with five or more woodland floral species present.
Grantchester Road Plantations	1km north	A broadleaved woodland over 1 hectare (ha) in size, with at least 5 woodland flora species.
River Rhee	1.2km west	The River Rhee is a major river that is not grossly modified or polluted. Additionally, there are clusters of pollarded mature willows along its' banks.
Eight Acre Wood and Seven Acres Wood	1.6km north	Eight Acre Wood and Seven Acres Wood are blocks of broadleaved woodland home to variety of wildlife including birds, mammals, and plants including kingfisher, woodpeckers, owls, badger, and amphibians and reptiles.
Hobson's Brook South	1.6km south	A chalk stream with adjacent semi-natural habitat that has not been grossly modified through canalisation and poor water quality.
Hobson's Brook Mid	1.9km northeast	A chalk stream with adjacent semi-natural habitat that has not been grossly modified through canalisation and poor water quality.
Hobson's Park	2.0km northeast	120 acres of area of rough grassland, lakes and ponds, trees, and reedbeds. The site was designated due to it supporting 10 breeding bird species and 15 wintering bird

Site Name	Approximate Location	Description
		species recorded over 5 years. It also supports a population of nationally scarce common hedge parsley (*Torilis arvensis*).
Trumpington Road Woodland	2.1km northeast	A woodland of over 1ha with five or more woodland floral species present.

Biodiversity Action Plans

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

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 Principle Importance list (as required under section 41 of the Natural Environment and Rural Communities (NERC) Act).

There were nine hedgerows identified within the Site. Hedgerow are listed within the UK BAP Priority Habitats.

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.

Cambridgeshire and Peterborough Additional Species of Interest (CPASI)

Cambridgeshire and Peterborough Environmental Record Centre (CPERC) and The Cambridgeshire and Peterborough Biodiversity Group have established a list of Additional Species of Interest that have important populations of nationally rare species within Cambridgeshire. These should be considered in conjunction with the UK Priority species and therefore should also be considered as targets for conservation effort where appropriate.

Species Record

The information provided in the biological data search from CPERC identified records of a number of protected and BAP priority species within 2km search radius of the Site. Among others, these include the following species of relevance to the Site:

Badger - 24 records of badger were provided with records dated from 2001 to 2021. 20 of the records were pertaining to badger setts, with the remainder of the records being fields signs and road traffic casualties. The nearest record to the Site was a sett recorded approximately 80m from the southwestern boundary of the Site, recorded in 2017. There were a further three records of setts approximately 200m north of the Site.

Bats - 83 records of bats were provided ranging from 2003 to 2023. Species recorded included common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), Nathusius'

pipistrelle (*Pipistrellus nathusii*), daubenton's bat (*Myotis daubentonii*), brown long-eared bat (*Plecotus auritus*), Natterers' bat (*Myotis natteri*), common noctule (*Nyctalus noctula*), and serotine (*Eptesicus serotinus*). The records varied from foraging activity, to injured individuals, and roosts. The nearest record to the Site was one of Daubenton's' 160m north of the Site recorded in 2020, injured by a cat. In addition, there were 20 records of foraging Daubenton's, noctule, Nathusius', common pipistrelle, and soprano pipistrelle and other Myotis species.

GCN - 3 records of GCN were identified 1.4km south of the Site and were dated in 2016. The records pertain to a breeding pond.

Reptiles - One record of adder (*Vipera berus*) was located 1.5km northwest of the Site. Eight records of grass snake were located to the north and northeast of the Site, with the closest record situated 160m north of the Site, recorded in 2023.

Water vole - 66 records of water vole were produced from 2002 until 2023. The records were located to the north and east of the Site, along the River Cam and its tributary Bourne Brook. The nearest records were 240m west and 260m north of the surveyed area.

Otter - 35 records of otter were identified from 2002 until 2020. The nearest records were two records 233m west, five records 337m northwest, and one record 464m north. All of these records were along the River Cam.

Birds - 162 records of 34 species of birds were identified ranging from 2000 to 2023. None of the records were within the Site boundary. A full species list can be found in Appendix A, Table A.1. The nearest record to the Site was one of grey partridge (*Perdix perdix*) and golden plover (*Pluvialis apricaria*) immediately adjacent of the southern boundary of the Site.

Invertebrates - There were 47 species of invertebrates identified, the majority of which were situated to the north of the Site, along the River Cam.

Invasive Non-Native Species - Several invasive species were identified within 2km of the Site, these included American mink (*Neovision vision*), signal crayfish (*Pasifastacus leniusculus*), giant hogweed (*Heracleum mantegazzianum*), and Himalayan balsam (*Impatiens glandulifera*). The record of signal crayfish was 1.6km west of the Site, and the records of American mink and Himalayan balsam were both situated approximately 200m north of the Site, along the River Cam. The one record of giant hogweed was immediately adjacent to the southwestern boundary of the Site, near the motorway and was recorded in 2014.

UK BAP - There were two records of brown hare (*Lepus europaeus*) within the boundary of the Site from 2012 and 2013, and 8 other records in the surrounding area from 2008 to 2017. One record of harvest mouse (*Micromys minutus*) was identified on the northern boundary of the Site in 2016. The nearest record of European hedgehog (*Erinaceus europaeus*) was located 450m northeast of the Site within residential gardens.
The species listed above 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 the following chapter.

4.2 DETAILED DESCRIPTION OF SITE: HABITATS

The habitats presented across the Site consist of the following UKHab categories, as mapped at Figure A.1:

Arable and Horticulture

(c1c7) Other cereal crops

The Site comprised of six arable fields actively farmed with oil seed rape (*Brassica napus*) that had grown to approximately 0.5m tall at the time of survey (Appendix B, Plate 1; Parcel 1)**.**

Grassland

(g3c) Other neutral grassland [Secondary code: 10 - Scattered scrub]

There was one compartment (Appendix B, Plate 2; Parcel 2) of 'Other neutral grassland' to the north of the Site. The sward height of the grassland varied, with few areas of bare ground. Cocks' foot (*Dactylis glomerata*) was dominant, with frequent common mouse ear (*Cerastium fontanum*), ribwort plantain (*Plantago lanceolata*), and dandelion (*Taraxacum* agg.). Barren brome (*Anisantha sterilis*), red fescue (*Festuca rubra*), white clover (*Trifolium repens*), perennial ryegrass (*Lolium perenne*), false oatgrass (*Arrhenatherum elatius*), doves' foot cranesbill (*Geranium molle*), ragwort (*Jacobaea vulgaris*), Yorkshire fog (*Holcus lanatus*), oxeye daisy (*Leucanthemum vulgare*), bristly oxtongue (*Helminthotheca echioides*) were occasional within the grassland. Common rye (*Secale cereale*), yarrow (*Achillea millefolium*), common vetch (*Vicia satvia*), cut leaf cranesbill (*Geranium dissectum*), cleavers (*Galium aparine*), and a umbellifer species (*Apiacaea sp.*) were identified to be rare within the grassland. This compartment of grassland also comprised small patches of hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*), rose (*Rosa sp*.) and blackthorn (*Prunus spinosa*) scrub.

(g4) Modified grassland [Secondary codes: 10, 16 -Tall forbs]

There were three compartments of modified grassland, one west (Appendix B, Plate 3; Parcel 3), one east (Appendix B, Plate 4; Parcel 4), and the third to the south (Appendix B, Plate 5; Parcel 5).

Parcel 3 comprised dominant annual meadowgrass (*Poa annua*), perennial ryegrass, ribwort plantain, and barren brome. Frequently were cocks' foot and cleavers. Rare were field madder (*Sherardia arvensis L*.), red clover (*Trifolium pratense*), spear thistle (*Cirsium vugare*), bristly oxtongue, and cleavers. The parcel comprised scattered scrub including blackthorn, hawthorn, rose, and hazel.

Parcel 4 comprised dominant common vetch, red fescue, cocks' foot, and white clover. Rough meadow grass (*Poa Trivialis L.*) and ribwort plantain were abundant. Perennial ryegrass, bristly oxtongue, and dandelion were occasional. Ladies' bedstraw (*Galiumverum*) and hedge bedstraw (*Galium mollugo*), barren brome, spear thistle, common mouse ear, cut leaf cranesbill, Yorkshire fog, doves' foot cranesbill, ragwort and yarrow were rare. There was one lone standing tree within this grassland (Figure A.1, T3)

Parcel 5 comprised dominant false oat grass with abundant creeping thistle (*Cirsium arvense*) and dandelion. Red fescue and cocks' foot were frequent, and barren brome was occasional. Tall fescue (*Schedonorus arundinaceus*), common couch (*Elymus repens*), vetch sp. (*Vicia* sp.), common vetch (*Elymus repens*), ribwort plantain, yarrow, cut leaf cranesbill and cleavers were rare.

Heathland and shrub

(h3h) Mixed scrub

There were four compartments of mixed scrub with two different compositions.

Parcel 6 (Appendix B, Plate 6) comprised wild cherry (*Prunus avium*), lime (*Tilia* sp.), elder (*Sambucus nigra*), lilac (*Syringa vulgaris*), blackthorn, and hawthorn. There were two trees within this scrub (Figure A.1, T1 and T2).

Parcels 7, 8, and 9 (Appendix B, Plate 7) comprised field maple (*Acer campestre*), holly (*Ilex aquifolium*), dogwood (*Cornus sanguinea*), rose (*Rosa* sp.), bramble (*Rubus fruticosus*), hawthorn, hazel, and blackthorn.

(h2a) Native hedgerows

There were nine native species hedgerows separating and bordering the arable fields (Appendix A, Figure A.1).

(h2a6) Other native hedgerow

Hedgerow 1 (Figure A.1; H1, Appendix B, Plate 8) was comprised of goat willow (*Salix caprea*), hawthorn, elder, and blackthorn and measured approximately 31m long, 3m in height and over 1.5m width. The hedgerow and its' margin were unmanaged with frequent nettle.

Hedgerow 2 (Figure A.1; H2, Appendix B, Plate 9) was comprised of guelder rose (*Viburnum opulus*), field maple, blackthorn, and hawthorn. The hedgerow measures 230m long, 2.5m in height, and 1.8m wide, and had a gappy base.

Hedgerow 4 (Figure A.1; H4, Appendix B, Plate 10) comprised blackthorn, guelder rose, dogwood, and hazel. It measured 85m in length, 1.6m tall and 1.2m wide. There was a fence running through the hedgerow and over 10% of the length of the hedgerow consisted of gaps.

Hedgerow 5 (Figure A.1; H5, Appendix B, Plate 11) comprised hawthorn, blackthorn, field maple, and hazel. The hedgerow measures 170m long, 2.5m tall and 1.3m wide. There were canopy gaps larger than 5m and the gap at the base of the hedgerow was over 0.5m for much of its' length. There was disturbed ground on both sides and gaps in the hedgerow.

Hedgerow 6 (Figure A.1; H6, Appendix B, Plate 12) comprised hawthorn, blackthorn, dogwood, and guelder rose, and measured 121m length, 2.5m high, and 1.4m wide.

(h2a5) Species-rich native hedgerow

Hedgerow 3 (Figure A.1; H3, Appendix B, Plate 13) comprised hawthorn, blackthorn, dogwood, hazel, field maple, and guelder rose, and measured 558m in length, 2.5m in height and 1.8m wide.

Hedgerow 7 (Figure A.1; H7, Appendix B, Plate 14) comprised field maple, hawthorn, hazel, guelder rose, blackthorn, and dogwood. The hedgerow measures 394m long, 3m in height and 1.8m wide.

Hedgerow 8 (Figure A.1; H8, Appendix B, Plate 15) comprised wild cherry, hawthorn, hazel, guelder rose, field maple, and blackthorn. The hedgerow measured 130m in length, 3m in height, and 1.4m width.

Hedgerow 9 (Figure A.1; H9, Appendix B, Plate 16) comprised hawthorn, blackthorn, hazel, dogwood, and field maple, and measured 287m in length, 3m height, and 1.8m width.

Woodland and forest

(w1g) Other broadleaved woodland [Secondary code: 33 - Line of trees]

To the northeastern corner of the Site, there were three parallel lines of trees (Figure A.1., Appendix B, Plate 17). These were approximately 30m long and comprised of common lime (*Tilia*

*europa*ea) and pedunculate oak (*Quercus robur*). The trees were all young, with frequent gaps in the line of trees and bare ground beneath.

Urban

(u1) Bare ground [Secondary code: 510 - Bare ground, 81 - Ruderal/ephemeral]

There was an area of bare ground to the north of the surveyed area (Figure A.1.). This had no vegetation emergent (Appendix B; Plate 18, Parcel 10).

To the north-eastern boundary of the Site were two triangular habitat parcels of bare ground that had ruderal and ephemeral plant species beginning to colonise. Species within this area include frequent bristly oxtongue, barren brome, cut-leaved cranesbill, black medic (*Medicago lupulina*), and spotted medic (*Medicago arabica*). Ribwort plantain, white clover, creeping thistle, common mouse ear, common vetch, cock's-foot, broad-leaved dock, speedwell sp., common mallow, doves' foot cranesbill, annual meadow grass, and cleavers were occasional. Weld (*Reseda luteola*), black grass (*Alopecurus myosuroides*), curled dock (*Rumex crispus*), common storkbill (*Erodium cicutarium*), sow thistle (*Sonchus oleraceus*), red campion (*Silene dioica*), poppy (*Papaver sp.*), mugwort (*Artemisia vulgaris*), St John's wort (*Hypericum perforatum*), mullein (Verbascum sp.) common couch, spear thistle, and yarrow were rare.

(u1f) Sparsely vegetated urban land

Toward the centre of the Site was an area of sparsely vegetated urban land. This predominantly comprised low-lying vegetation, but with a mix of pollinator species including common mallow (*Malva neglecta*), white dead nettle (*Lamium album*), mullein, curled dock, sow thistle, ribwort plantain, spotted medic, barren brome, doves' foot cranesbill, bristly oxtongue, cut leaved cranesbill, perennial ryegrass, common mouse ear, and cleavers. (Appendix B; Plate 19, Parcel 11).

(u1b) Developed land, sealed surface

Along the northern boundary of the Site, and through the centre is a tarmacked access track. This has no vegetation (Appendix B; Plate 20, Parcel 12).

4.3 DETAILED DESCRIPTION OF SITE: SPECIES

Badger

There were multiple patches of mixed scrub and nine hedgerows within the Site which may provide suitable foraging habitat and sett building habitat. Additionally, the arable fields may provide foraging habitat within the Site. Mammal runs were identified throughout the Site. Due to the timing of the survey, some of the scrub and hedgerow vegetation within the Site was very dense and therefore a full inspection could not be carried out. Therefore, the Site was assessed to have '**Moderate**' suitability for badger.

Bats

Foraging and commuting

The multiple hedgerow and patches of mixed scrub throughout the Site provide some foraging and commuting habitat for bats. Additionally, with the River Cam being situated ~230m northwest of

the Site, gives the Site connectivity to the wider landscape. Therefore, the Site has been assessed to have '**Moderate**' suitability for foraging bats.

Summer/transitional Roosting

There were no opportunities for roosting bats within the Site. There were some trees within the mixed scrub patches and three lines of trees. However, these trees were in a good state of health with no gaps, cracks, or crevices suitable for roosting bats. There were no buildings or built structures present within the Site. Therefore, the Site is considered to hold '**Negligible**' suitability for roosting bats and will not be discussed further within this report.

Winter Hibernation

There were no features identified within the Site to be suitable for bat hibernation. Therefore, the Site was '**Negligible**' for hibernating bats. Therefore, hibernating bats will not be discussed further within this report.

Great Crested Newt

There were no ponds or waterbodies within the Site. There was one pond identified 30m north of the Site.

However, this is a single, large waterbody, isolated from other ponds by distance, and major roads and rivers that act as barriers to dispersal. The site and wider surroundings therefore lack the network of suitable waterbodies that the species requires to breed, therefore it is considered to have **'negligible'** potential to support Great Crested Newt (GCN) and will not be discussed further within this report.

Reptiles

The Site contains areas of grassland, mixed scrub, hedgerow, and bare ground. This network of habitats makes the Site suitable for reptiles due to the varied opportunities for basking, foraging and refuge. However, the eastern boundary of the Site is subject to regular disturbance from the adjacent residential development, and agricultural activities within the majority of the Site reduce the likelihood of reptiles. Therefore, the Site is assessed to hold '**Moderate**' suitability for reptiles.

Hazel Dormouse

Whilst the site contains hedgerow and scrub, the scrub areas are small, and the hedgerows do not connect to larger areas of suitable habitat in the wider area. Furthermore, no dormouse records were returned from within 2km in the desk study. within the Site were unmanaged and bushy, with hazel being a common feature of the hedgerow within the Site. People's Trust for Endangered Species (PTES) and Wildlife Trust Beds, Cambs & Northants both identify a population of hazel dormice that were reintroduced to Cambridgeshire in 1993, with further reintroduction in 2023. However, this Site is 30km northeast of the Site. Due to the agricultural disturbance and the distance between the Site and nearest known population, this can be considered '**negligible**' suitability and this species will not be discussed further within this report.

Water Vole

The River Cam flows approximately 230m north of the Site. This is considered to be too far away from the Site for water voles, and the Site did not contain ditches that may provide habitat for water vole. The Site is therefore considered to be of '**Negligible**' potential for the species, and this species will not be discussed further within this report.

Otter

Otters are known to often leave the river and holt in adjacent habitat. In addition, the pond 50m north of the Site may provide foraging opportunities close to the Site. However the Site largely comprises disturbed arable fields, and no signs of otter were noted, therefore, the Site is considered to provide '**Low**' suitability for otter.

Birds

The hedgerows, scrub, trees, grassland, and arable fields within the Site provide nesting and foraging habitat for a range bird species. It was noted during the field survey that the adjacent Country Park to the north of the Site had a designated area for Skylark (*Alauda arvensis*) nesting, and Skylark could be heard singing across the Site. Therefore, the Site was assessed to hold '**High**' suitability for nesting and foraging birds.

Invertebrates

Most of the Site is arable crops, of limited value to invertebrates. Although the 'other neutral grassland' to the north of the Site provides higher quality habitat for invertebrates, this area is small. Therefore, the site is considered to be of **'low'** value to notable invertebrates.

Protected Plant Species

There were no protected plant species identified during the field survey. Therefore, these will not be discussed further within this report.

Invasive/Non-native species

There were no invasive non-native species identified during the field survey. Therefore, these will not be discussed further within this report.

Other BAP Species

The hedgerows and scrub provide good commuting and foraging habitat for hedgehog (*Erinaceus europaeus*) and the arable field and grasslands provide habitat for brown hare (*Lepus europaeus*), which has been previously recorded within the Site, although the regularly disturbed nature of the Site limit its current potential for brown hare. The grasslands may provide habitat for harvest mouse, although the area of taller sward neutral grassland is small. The site is therefore considered to be of **'moderate'** potential for hedgehog and brown hare, and '**low**' potential for harvest mouse.

5.0 EVALUATION AND DISCUSSION

5.1 BASELINE SUMMARY

The Site and its surroundings have potential to support the following ecological receptors of note, which could therefore be impacted upon by any future prospective development proposals, as indicated in Table 5.1 below. Comment on further recommendations for each receptor is provided; further detail and discussion can be found at paragraph 5.2 onward:

Table 5.1 Baseline Summary

Receptor	Presence/Potential Presence	Comments
Designated Sites: Statutory	Present within 2km	There were no statutory designated sites within or immediately adjacent to the boundary of the Site. The nearest site was Byron's Pool LNR 800m north and separated from the Site by the River Cam. Due to the distance, it is unlikely that the development will impact upon the designation of the LNR.
Designated Sites: Non-Statutory	Present within 2km	There were no non-statutory sites within or immediately adjacent to the boundary of the Site. However, the nearest site was the River Cam, 230m north. Whilst direct impacts are not likely due to the distance between the Site and the River Cam, indirect impacts in the form of noise, dust, and light pollution may impact upon the Site. This may impact upon the River's value as a corridor habitat for many species such as otter, water vole and bats. Therefore, it is recommended that precautionary work measures are outline within a Construction Environmental Management Plan (CEMP).
Notable/Rare Habitats	Present	There were 9 hedgerows identified within the Site. These are a listed as a UKHab Priority Habitat. Without consideration, the development could cause the degradation or destruction of this habitat. Therefore, it is recommended that these are retained where possible within the development and a buffer zone is implemented to protect the root system and adjacent flora of the hedgerow.
Badger	Moderate potential	The hedgerows, grassland, and scrub provide potential sett building and foraging

Receptor	Presence/Potential Presence	Comments
		habitat. Dense vegetation on Site meant the whole extent of the Site could not be thoroughly checked for the presence of badger setts. Without consideration, the development stands to potentially remove important sett building habitat, or destroy badger setts, as well as loss of foraging habitat. Further badger surveys are recommended to confirm the presence/absence of badger setts within the Site and determine the level of foraging activity that may take place within the Site.
Foraging bats	Moderate suitability	The hedgerow, scrub vegetation, and grassland within the Site provide foraging habitat for bats. Without consideration, redevelopment of the Site has the potential to cause a loss of foraging and commuting corridors for bats and fragment the landscape. Therefore, night-time bat walkover surveys are recommended to determine the status of foraging bats on Site.
Reptiles	Potential presence	The areas of bare ground, grassland and scrub provide suitable basking, foraging and refuge for reptiles. The development may cause the loss of a matrix of habitats offering a range of functions for reptiles. Additional surveys are recommended to assess the potential for reptiles to be present within the Site.
Otter	Low potential	Although the distance from the river reduces the potential for otters to be present, presence of otters cannot be completely ruled out. Full otter surveys of the river and pond are not required, however a pre-clearance check for holts or other signs of otter is recommended.
Birds	High potential	There were Skylark noted within the Site. In addition, the multiple hedgerows, scrub, grassland, and arable fields provide both foraging and nesting habitat for birds, which the development is likely to impact. To be able to further assess the impacts of the work on foraging and breeding birds, it

Receptor	Presence/Potential Presence	Comments
		is recommended that breeding bird surveys are undertaken.
Invertebrates	Low potential	Areas of suitable habitat for invertebrates are limited, therefore further surveys are not required, however enhancement recommendations to increase the site's suitability for reptiles are provided below.
Other BAP species	Moderate / low potential	The Site holds habitat for hedgehog, brown hare, and harvest mouse. The data search identified records for brown hare and harvest mouse within, or immediately adjacent to the Site boundary. Hedgehog often use hedgerow and scrub for foraging and refuge. Hedgehog, brown hare, and harvest mouse are listed as a UK BAP species due to the increase pressure on the population from urbanisation and habitat loss. Further surveys for these species are not required, however precautionary measures and enhancements of the Site in relation to hedgehog, brown hare, and harvest mouse will be recommended.

5.2 DISCUSSION AND RECOMMENDATIONS

Discussion is provided below on the key ecological receptors that stand to be impacted/benefit from proposed works; high level commentary on appropriate mitigation, compensation and enhancement actions is also provided.

An Ecological Management Plan (EMP) and Construction Environmental Management Plan (CEMP) should be produced and implemented for the Site providing greater detail on the below, which should be secured through planning condition in accordance with BS 42020: 2013 Biodiversity.

Designated sites

Statutory

There were no statutory sites within the boundary of the Site. The nearest statutory designation was 800m north of the Site. The designated site is considered to be sufficiently distanced from the Site that the works are unlikely to cause a direct or indirect impact.

Non-Statutory

The nearest non-statutory site is the River Cam flows 230m to the north of the Site. Whilst the river is sufficiently distanced that direct impacts would be unlikely, indirect impacts could cause disturbance to the function of the River as a habitat corridor. Therefore, it is recommended that

precautionary measures to reduce the indirect impacts of development, such as dust, noise, light, and surface runoff are included within a CEMP.

Notable/Rare habitats

There were nine hedgerows identified within the Site, which are listed as UK BAP Habitats and therefore, it is recommended that these are retained where possible. Where removal of these is required, additional hedgerows will be required to meet Biodiversity Net Gain (BNG) requirements.

Badger

The scrub and hedgerow within the Site provide sett building and foraging opportunities. Due to the density of the vegetation at the time of survey, it was not possible to confidently and fully survey the Site for badger setts or field signs of badger. Therefore, it is recommended that a badger walkover survey is carried out in winter, once vegetation has died back, to establish the likelihood of use and the type of use of the Site by badger.

Bats

Foraging and Commuting

The mix of habitats within the Site, coupled with the proximity to the north, makes the Site suitable for foraging and commuting bats. As such, Bat Conservation Trust (BCT) Guidelines[7] recommend that prior to development, a Night-time Bat Walkover (NBW) survey should be completed seasonally between the months of April - October i.e. one during April/May (spring), one during June/July/August (summer) and one during September/October (autumn). N.B. Additional survey effort may be appropriate if the NBWs identify activity of interest that requires more observation on Site to confidently categorise it. The NBW should be supported by automated static bat monitoring, with static recording devices set at three locations per month, between the months of April to October. The surveys will determine the species of bat that may be using the Site as well as the specific areas of the Site that bats may be utilising. This information will allow a better assessment of the Site for foraging and commuting bats prior to recommending any mitigation.

Reptiles

The Site provides opportunities for basking, foraging, and refuge for reptiles. Additionally, grass snake and slow worm have both been historically identified within 160m of the Site. Therefore, reptile survey is recommended to determine the presence or likely absence of reptiles ahead of development. A suite of seven survey visits should take place between April and September, with the optimal months comprising April/May and September. Survey visits in June/July/August are sometimes unsuitable due to high temperatures which reduces the likelihood of reptile detection and therefore should be considered on a bespoke basis.

Otter

The site offers limited suitable habitat to otter, comprising mostly disturbed arable land, however the river and waterbody are sufficiently close that presence cannot be completely ruled out. Full otter surveys are not considered necessary; however the site should be checked for otters and

field signs such as holts prior to any site clearance. In the unlikely event that any signs of otter are noted within the site, the nature of the findings will inform appropriate recommendations.

Birds

The grassland, shrub, arable fields, and trees all provide habitats for breeding birds. 34 species of birds were identified within 2km of the Site, and skylark were found to be active within the Site during the survey. Therefore, it is recommended that further breeding bird surveys are carried out to enable a full understanding of how the development may impact on breeding birds. The breeding bird surveys consist of a series of six survey visits, in which a transect around the Site is walked and bird species are noted. These visits begin shortly before sunrise, with at least one of the visits in the evening to capture any nocturnal birds, such as barn owls. These six surveys should occur from March to early July, spread evenly throughout the season.

BAP Species

BAP species such as hedgehog, brown hare, and harvest mouse could be associated with the Site as there is suitable habitat present for foraging and sheltering. Records of brown hare and harvest mouse have been identified by the data search within and adjacent to the Site boundary.

Specific detailed survey is not necessary for these species; however, they should be taken into consideration during the vegetation clearance as best practice i.e. Precautionary Methods of Works (PMoW) apply. Adult brown hare will typically move away from disturbance of their own volition, but leverets that often shelter within shallow hollows at the edges of woodland/hedgerows, will typically 'sit tight' and therefore vigilance by contractors should be maintained in these types of habitat locations. If leverets are encountered, the works should temporarily cease until animals have moved away of their own volition. The same principles apply for hedgehog. Vigilance for presence should be maintained and the works should temporarily cease to allow individuals to move away of their own volition if encountered. Clearance in a directional manner from south to north would also be beneficial, to enable and encourage movement into another suitable habitat.

The hedgerows and the line of trees within the Site may provide hibernation features for hedgehogs, as well as any piles of wood or garden waste that may be present within the boundaries of the Site.

It is recommended that boundary habitats such as hedgerows and scrub, are retained where possible, and if any of these habitats are removed, they should be replicated elsewhere within the Site design.

To retain habitat connectivity across the Site for hedgehog, the design may include the addition of a hedgehog 'highway' within the development, to allow for continued connectivity for hedgehog with the surrounding landscape and across the Site.

Harvest mouse build nests suspended in tall grasslands, which can be inconspicuous within dense grasslands. Therefore, any grassland clearance should be done under a PMoW and it is recommended that a suitably qualified ecologist attend the Site to check for nests prior to grassland cutting or removal.

Biodiversity Enhancements

In accordance with the National Planning Policy Framework, local policy drivers and recent changes to the legislative context, (Appendix C), proposals should seek to provide measurable net gains in biodiversity. These should aspire to a minimum of 10% net gain in biodiversity, which should be evidenced through a Biodiversity Net Gain Assessment (BNGA) using the Statutory Biodiversity Metric[8].

To further enhance the Site, the following measures should also be considered for incorporation into the proposed plans:

- The provision of bat boxes or integrated bat bricks within buildings of the development and retained trees near foraging/commuting habitat to align with national conservation objectives. These should be positioned at a minimum of 3m from ground level and away from significant disturbance (human/ /light spill). The number of bat boxes to be supplied will be determined when Site plans have been finalised and bat activity surveys completed;
- Bird nest boxes should be installed on to the façade of the buildings to provide additional nesting opportunities for birds. Bird boxes should be installed to specifically target UK BAP species such as swift and house sparrow. Examples include:
    - House sparrow terraces should be positioned near areas of vegetation at a minimum of 2m from ground level with a small hole entrance (around 32mm); and
    - Swift boxes installed at the highest elevation possible with a clear drop zone below.

  The types and numbers of boxes required will be determined once breeding bird surveys have been carried out and the Site plans have been finalised;
- Substrate-based, biodiverse roofs on flat roofs areas. These should be of varied substrate depth, and seeded / plug plated with a range of species;
- Consideration of vertical greening/ green walls, where considered technically feasible in the context of the specific buildings;
- New native hedges and creation of areas of mixed native scrub, utilising species such as holly (*Ilex aquifolium*), dogrose (*Rosa canina*), hawthorn (*Crataegus monogyna*) and hazel (*Corylus avellana*);
- Log piles within wooded areas to provide sheltering and hibernating opportunities;
- Wildlife-friendly/pollinator rich planting, including tree planting, and using species listed by the Royal Horticultural Society (RHS) Plants for Pollinators[9] list;
- Use of a diverse seed mix in wildflower meadow areas; and
- Use of a diverse pond edge seed mix around the proposed water landscape areas, if proposed.

6.0 SUMMARY & CONCLUSION

Greengage was commissioned by British Land to undertake a PEA of a Site known as Land at South Trumpington in Cambridgeshire to establish the ecological value of this Site and its potential to support notable and/or legally protected species.

This PEA has been prepared on behalf of British Land in support of the Greater Cambridge Local Plan 'Regulation 18 Consultation' exercise.

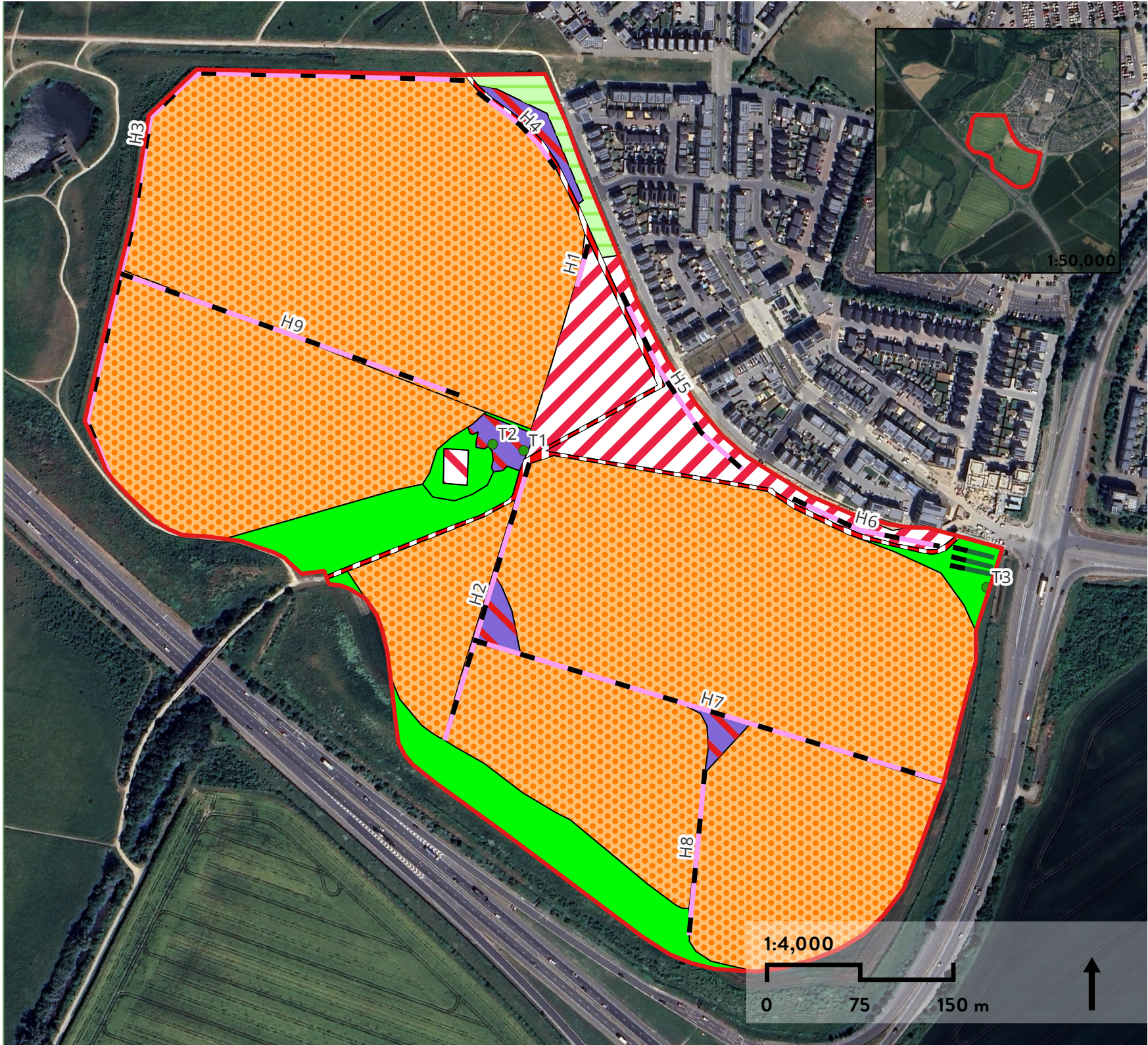
The PEA identified value for a number of notable and protected species and habitats, and further surveys are recommended.

Key mitigation, compensation and enhancement actions are described to enable legislative and policy compliance (see context at Appendix C), aiming to achieve net gains in biodiversity for the Site.

Key actions should be included within EMP and CEMP documents for the Site which could be secured through planning condition.

LAND AT SOUTH TRUMPINGTON

- Site Boundary
- Individual trees
- w1g - other broadleaved woodland
- h2a - native hedegrow
- g3c - other neutral grassland
- g4 - modified grassland
- h3h - mixed scrub
- c1c7 - other cereal crops
- u1 - built-up areas and gardens
- u1b - developed land - sealed surface
- u1f - sparsley vegetated urban land



Title: Figure A.1

Drawn by: FO
Date: 11/06/2024

Reviewed by: HB
Date: 11/06/2024

Project number: 552750
Sources: ESRI World Topo, Greenspace Information for Greater London (GiGL), Natural England

Greengage

APPENDIX A SITE PLAN AND HABITAT MAP

Figure A.1 Site plan and habitat map

APPENDIX B SITE PHOTOGRAPHS

Plate 1 - Parcel 1, Arable fields

Plate 2 - Parcel 2, Other neutral grassland (g3c)

Plate 3 - Parcel 3, Modified grassland (g4)

Plate 4 - Parcel 4, Modified grassland (g4)

Plate 5 - Parcel 5, Modified grassland (g4)

Plate 6 - Parcel 6, Mixed scrub (h3h)

Plate 7 - Parcels 7, 8, and 9, Mixed scrub (h3h)

Parcel 8 - Hedgerow H1

Plate 9 - Hedgerow H2

Plate 10 - Hedgerow H4

Plate 11 - Hedgerow H5

Plate 12 - Hedgerow H6

Plate 13 - Hedgerow H3

Plate 14 - Hedgerow H7

Plate 15 - Hedgerow H8

Plate 16 - Hedgerow H9

Plate 17 - Line of trees (w3g)

Plate 18 - Parcel 10, Bare ground (u1)

Plate 19 - Parcel 11, Sparsely vegetated ground (u1f)

Plate 20 - Parcel 12, Developed land, sealed surface (u1b)

APPENDIX C RELEVANT LEGISLATION AND POLICY

C.1 LEGISLATION

Current key legislation relating to ecology includes The Environment Act[10] Wildlife and Countryside Act 1981 (as amended)[11]; The Conservation of Habitats and Species Regulations 2019 ('Habitats & Species Regulations')[12], The Countryside and Rights of Way Act 2000 (CRoW Act)[13], and The Natural Environment and Rural Communities Act, 2006[14].

The Environment Act, 2021

Under the Environment Act, 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)[15], and transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('EU Habitats Directive')[16], and Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive')[17] 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 Habitats[18] (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 Plan[19] (UK BAP). Despite the devolution of the UK BAP and succession of the UK Post-2010 Biodiversity Framework[20] (and Biodiversity 2020 strategy[21] in England), as a response to the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020[22] and EU Biodiversity Strategy (EUBS)[23], 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 Nesting Birds

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 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 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 Dormice

Dormice are given full protection under Schedule 5 of the Wildlife and Countryside Act 1981, as amended. Protection to the species is also afforded by Regulation 43 of the Conservation of Habitats and Species Regulations 2019, making the hazel dormouse a European Protected Species. These two pieces of legislation operate in parallel, although there are some small differences in scope and wording. Under the provisions of Section 9 of the Wildlife & Countryside Act, it is an offence to:

- Intentionally kill, injure or take a dormouse;
- Possess or control and live or dead specimen or anything derived from a dormouse (unless it can be shown to have been legally acquired);
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a dormouse; and
- Intentionally or recklessly disturb a dormouse while it is occupying a structure or place which it uses for that purpose.

Regulation 43 of the Conservation of Habitats and Species Regulations 2019 makes it an offence to:

- Deliberately capture or kill a dormouse;
- Deliberately disturb a dormouse;
- Damage or destroy a breeding site or resting place of a dormouse; and
- Keep transport, sell or exchange, or offer for sale or exchange a live or dead dormouse or any part of a dormouse.

Legislation Relating to Great Crested Newts

Great crested newts are given full protection under Schedule 5 of the Wildlife and Countryside Act 1981, as amended. Protection to the species is also afforded by Regulation 43 of the Conservation of Habitats and Species Regulations 2019, making the great crested newt a European Protected Species. These two pieces of legislation operate in parallel, although there are some small

differences in scope and wording. Under the provisions of Section 9 of the Wildlife & Countryside Act, it is an offence to:

- Intentionally kill, injure or take a great crested newt;
- Possess or control and live or dead specimen or anything derived from a great crested newt (unless it can be shown to have been legally acquired);
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt; and
- Intentionally or recklessly disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.

Regulation 43 of the Conservation of Habitats and Species Regulations 2019 makes it an offence to:

- Deliberately capture or kill a great crested newt;
- Deliberately disturb a great crested newt;
- Damage or destroy a breeding site or resting place of a great crested newt; and
- Keep transport, sell or exchange, or offer for sale or exchange a live or dead great crested newt or any part of a great crested newt.

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.

C.2 PLANNING POLICY

National

National Planning Policy Framework

The National Planning Policy Framework (NPPF) 2024[24] 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

Cambridgeshire Local Nature Recovery Strategy

A Local Nature Recovery Strategy (LNRS) is being created for Cambridgeshire as an important component of the Environment Acts 2021. This will include a description of the strategy for Cambridgeshire, identify opportunities for recovering and enhancing biodiversity, prioritise areas and species, and map national conservation sites, nature reserves, areas important for biodiversity, and areas where biodiversity could contribute to environmental benefits.

Cambridgeshire and Peterborough Additional Species of Interest (CPASI)

As well as the UK Biodiversity Action Plan (BAP) species, Cambridgeshire and Peterborough Environmental Record Centre (CPERC) and The Cambridgeshire and Peterborough Biodiversity Group have compiled a list of additional species of interest. This comprises over 170 species that have important populations within Cambridgeshire and Peterborough but are not on the UK BAP priority list. These species have been selected for due to being relatively nationally rare, with significant proportions of the national population residing in Cambridgeshire. These CPASI species should be considered in conjunction with the UK priority species and should be considered as targets for conservation effort where appropriate.

Local

Local policy and SPDs

Cambridge City Council Biodiversity Strategy (2022-2030)

The aim of the Cambridge City Council Biodiversity Strategy is to provide a measurable net gain in biodiversity within the city and the surrounding countryside. It is their aim is to promote the principles outlined within the Lawton Report: bigger, better, more joined up, to give the public and residents access to high quality green space. The strategy also aims to work alongside the Cambridge Nature Recovery Networks River Cam Priority Area to provide a network of habitats including wetlands and grassland, providing better opportunities for habitats such as otter, eel, and water vole.

The seven main objective of the strategy are:

- To secure a measurable net gain in biodiversity across the City by 2025 and support the Natural Cambridgeshire Doubling Nature Vision by 2030;
- To ensure designated sites and priority habitats are in good / favourable condition and connected, where possible, to increase resilience to a changing climate and contribute to the Cambridge Nature Network;
- To promote awareness of biodiversity and wellbeing, supporting coordinated action in our communities, businesses, and institutions;
- To ensure that biodiversity is considered by all council service functions and projects Cambridge City Council Biodiversity Strategy 2022 - 2030;
- To maximise the potential of our buildings, parks, open spaces, allotments and community gardens, watercourses and tree stock to support biodiversity, whilst balancing their multifunctional needs;
- To harness the wealth of local professional and amateur knowledge and experience in identifying and solving local issues; and
- To establish long term, species and habitat surveys and monitoring to measure the impact of activities and identify new threats and opportunities across the city.

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