



GRANGE FARM

Shaped by the Land, Cultivated by the Community

ABINGTON, SOUTH CAMBRIDGESHIRE

TECHNICAL APPENDIX

PRELIMINARY ECOLOGICAL
APPRAISAL BY:

BSG | ecology

A Submission to
Greater Cambridge
Shared Planning Service

June 2026

Grange Farm
Little Abington
Preliminary Ecological Appraisal

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1 Introduction

Background to commission

- 1.1 BSG Ecology Ltd was commissioned in January 2026 by No 6 Developments Ltd, on behalf of Pampisford Estate Farms Ltd, to carry out a Preliminary Ecological Appraisal (PEA) for a potential development allocation on land at Little Abington, South Cambridgeshire. The PEA included a desk study and a habitat survey.

Site description

- 1.2 The 'Site' comprises approximately 276 ha of farmland, centred at Ordnance Survey National Grid Reference TL 53527 50477. The 'Site Boundary' is shown on Figure 1.
- 1.3 This Preliminary Ecological Appraisal also covered an additional area of farmland to the east of the Site, as per Figure 1. The total area within the 'Survey Boundary' comprises approximately 375 ha.
- 1.4 For clarity, the Site Boundary and Survey Boundary presented at Figure 1 are not necessarily the boundary of the proposed area for allocation, rather an indicative site extent and the extent of the area surveyed in the PEA, respectively, set at an early stage in the design process.
- 1.5 The Site is situated north of the village of Little Abington. It is currently dominated by arable farmland, with small areas of grassland and woodland.
- 1.6 The Site is bounded to the west by the A11 road, and to the south by the A1307 road. It is bounded to the north by the Roman Road, which is a bridleway, Site of Special Scientific Interest (SSSI) and Schedule Ancient Monument. To the east there is further arable farmland.

Description of project

- 1.7 Land at the Site is being considered for allocation in the Greater Cambridge Local Plan for a potential new settlement of several thousand homes plus associated infrastructure and greenspace (the 'Proposed Development'). The exact development boundary, layout and access arrangements are not available at this stage. This report is prepared to inform the emerging proposals for development.

Scope of study

- 1.8 This report provides preliminary baseline ecological information on the Site, based on an ecology desk study and an extended habitat survey.
- 1.9 It also provides a preliminary assessment of potential ecological impacts of the Proposed Development. This uses the baseline information to:
- Identify potential ecological constraints to the Proposed Development.
 - Make recommendations for project design to avoid and minimise ecological impacts from the Proposed Development.
 - Identify likely requirements for ecological mitigation, in line with the ecological Mitigation Hierarchy (British Standards, 2013).
 - Identify opportunities to incorporate ecological enhancement into the Proposed Development.
 - Identify where further ecological surveys are needed to understand and assess potential constraints, and what assessment would be necessary to support an outline planning application for the Proposed Development.
- 1.10 This PEA also includes a baseline Biodiversity Net Gain (BNG) calculation using the Statutory Biodiversity Metric. This sets out the current biodiversity value of the Site, identifies the number of units required to achieve 10% BNG and 20% BNG, and provides high-level advice on options for delivering this BNG on- and/or off-site.

2 Methods

Desk study

- 2.1 Information on the presence of designated sites¹ and records of protected and notable² species in the vicinity of the Site was provided by Cambridgeshire and Peterborough Environmental Records Centre (CPERC) on 21 January 2026. The search area extended 2 km from Survey Boundary, extending to 10 km for European sites.
- 2.2 The desk study made use of publicly available online mapping and aerial photography resources to assess the landscape and ecological context of the Site, and to identify any designated sites of nature conservation interest including:
- The Multi-Agency Geographic Information for the Countryside (MAGIC) database (<http://www.magic.gov.uk/>). This was used to identify any nearby statutorily designated sites (including Sites of Special Scientific Interest (SSSIs)), any granted European Protected Species Mitigation Licence (EPSM) applications³, Defra eDNA survey results of ponds 2017-2019, and great crested newt survey licence returns within 2 km of the Survey Boundary.
 - Google earth – aerial photographs from 2000 to establish any likely changes in habitats present since 30 January 2020⁴.
 - Base mapping and aerial images from the MAGIC website were used to identify waterbodies up to 500 m from the Site to help inform an assessment of the potential for great crested newt to be present on Site.⁵

Habitat Survey

- 2.3 An Extended Habitat Survey of the area within the Survey Boundary was carried out on 22 and 23 January by Dr Tom Flynn. The surveyor identified the type and extent of habitats within this area and immediately adjacent to the boundary where access was possible, classifying habitats according to the UK Habitats Classification (UKHab, 2023). The minimum mapping unit used for the survey was 25 m² (5 m x 5 m). All features smaller than this threshold were not mapped as independent habitats parcels; they were considered to form part of the wider surrounding/adjacent habitat parcel. Representative photographs were taken of habitats and ecological features observed.
- 2.4 Target notes were made where necessary to identify any habitats or features of particular interest. Indicative lists of plant species were made for certain habitats, and the relative abundance of these plants was estimated using the DAFOR⁶ scale. Given the time of year, which was too early for comprehensive botanical survey, the condition of the habitats present was estimated in the field by the surveyor using their professional judgment, with reference to the Statutory Biodiversity Metric condition assessment methodology (Defra, 2025b).
- 2.5 The survey was 'extended' to include an assessment of the Site's potential to support protected species and/or otherwise notable species⁷. Any invasive non-native plant species, listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), apparent at the time of survey were identified.
- 2.6 Weather conditions during the survey were cloudy, cool (7°C) and dry, with a light wind and some mist.

¹ Statutory Sites: European Sites (SAC/SPA/Ramsar Sites), SSSIs, NNRs and LNRs; Non-statutory Sites: Local Wildlife Sites / County Wildlife Sites (and equivalent designations) and Ancient Woodland sites.

² Notable Species - Species of Principal Importance (SPI) in England and species with other conservation significance (e.g. red or amber listed birds or species listed in relevant red data lists).

³ This data was most recently updated 13 January 2022, but provides contextual information.

⁴ Where changes have occurred since 30 January 2020 any degradation in the quality of habitat present needs to be taken into account in the BNG baseline calculation.

⁵ Maps: online OS maps from wheresthepath.com. Google earth, 02/02/26. Magic.defra.gov.uk, 02/02/26.

⁶ D=Dominant, A=Abundant, F=Frequent, O=Occasional, and R= Rare

⁷ Protected species: those that are protected under the Wildlife and Countryside Act 1981 (WCA) or the Conservation of Habitats and Species Regulations 2017; badger is also subject to specific legal protection.

Appraisal Method

- 2.7 The appraisal methods were devised with reference to industry guidance on Preliminary Ecological Appraisal (CIEEM, 2017). This involves identifying the key ecological features at or near the Site (designated sites, habitats and species) and then identifying the potential for development at the Site to affect these features.
- 2.8 Habitats of Principal Importance (HPIs) were identified with reference to Maddock (2011) and Species of Principal Importance (SPIs) were identified based on a list compiled by Natural England (Natural England, 2022).

Preliminary Biodiversity Net Gain assessment

- 2.9 A preliminary Biodiversity Net Gain assessment was carried out. This can be used to inform initial discussions about design layout and how this relates to the application of mitigation and biodiversity net gain hierarchies (avoiding impacts through design where possible).
- 2.10 The baseline value of the Site (for the purposes of Biodiversity Net Gain assessment) was obtained using the Statutory Biodiversity Metric (Defra 2025a) and User Guide (Defra, 2025b and 2025c). This assessment focused on the area within the Site Boundary, rather than the Survey Boundary. The Biodiversity Metric takes into account the type of habitat present, which is represented in the calculation by a variable score for distinctiveness, the size of the habitat parcel (or length for hedgerows), the condition of the habitat as assessed during the baseline survey (see '*Extended Habitat Survey*', above), and the Strategic Significance of each habitat parcel. These variables were entered into the metric to obtain a baseline value for the Site, which is expressed in "biodiversity units".
- 2.11 Strategic Significance is the local significance of a habitat based on its location and type and is assigned with reference to documents relevant to the local planning authority area that identify either target areas or habitats for nature recovery (usually the Local Nature Recovery Strategy (LNRS)). Since Strategic Significance does not apply to baseline habitats, Strategic significance has not been incorporated into this preliminary BNG Assessment. I.e., all baseline habitats at the Site are considered to be of Low Strategic Significance.

Personnel

- 2.12 The Extended Habitat Survey was carried out by Tom Flynn MSc DPhil CEcol, Technical Director at BSG Ecology. Tom also authored this report.
- 2.13 Chloe Thompson BSc, Ecologist at BSG Ecology, undertook sections of the desk study.
- 2.14 Dr Peter Shepherd, BSc MCIEEM, Director at BSG Ecology reviewed this report.
- 2.15 A summary of the team's experience is provided at <https://www.bsg-ecology.com/people/>

Consideration of Limitations

- 2.16 The habitat survey was carried out in January. At this time of year, habitat survey can be constrained, as many plant species are not evident. The survey has therefore identified habitats as far as possible, has taken any uncertainty into account, and made recommendations for further survey where necessary.
- 2.17 A preliminary assessment of the potential for buildings to support bats was undertaken, but detailed inspections of any buildings at the Site were undertaken. This is a standard approach for a PEA and recommendations for further survey are made where necessary.
- 2.18 There are no significant limitations to this preliminary assessment.

3 Results and potential impacts

- 3.1 This section of the report uses tables to set out the results of the desk study and survey.
- 3.2 Table 1-3 identify the ecological features (designated sites, habitats and species) within the Site or relevant to the Proposed Development, if within the zone of influence.
- 3.3 The tables consider the potential for these features to be affected, identify recommendations for further survey and assessment, and provide initial guidance on mitigation and design considerations.
- 3.4 The recommendations below are intended to guide the design and evolution of the project to help meet national and local planning policy requirements and to achieve legislative compliance in respect of biodiversity.

Results, impacts, and recommendations tables

- 3.5 The following tables set out information on:
- **Table 1:** Designated sites within the desk study search area (where these are relevant to the project⁸)
 - **Table 2:** Habitats at the Site.
 - **Table 3:** The potential for the Site to support protected or notable species.

Accompanying information

- 3.6 Statutory designated sites within 2 km of the Site are shown on Figure 1.
- 3.7 The habitats at the Site are listed in Table 3 below and mapped on Figure 2. Photographs are provided in Section 10. Review of online aerial imagery does not indicate significant habitat changes have occurred at the Site since 30 January 2020. Accompanying Target Notes and species lists are provided in Appendices 2 and 3.
- 3.8 Information on relevant wildlife legislation and planning policy is provided in Appendix 1.
- 3.9 Where species/groups recorded in the desk study are considered unlikely to occur on or adjacent to the Site, i.e. where suitable habitat is not present, they are excluded from this assessment.

⁸ NB Where designated sites are present within the desk study search area, but unlikely to be affected based on distance, lack of connectivity, which mean that potential impact pathways are unlikely, they are not considered in detail in Table 1.

Table 1: Designated Sites (SSSI: Site of Special Scientific Interest; CWS: County Wildlife Site; RSV: Roadside Verge; PRV: Protected Road Verge).

Designated Site Name	Distance to Site	Within IRZ ⁹	Interest features	Potential for impacts
European sites				
None within 10 km of the Site				
SSSIs				
Furze Hill SSSI	1 km to east of Site	Yes	Area of acidic and calcareous grassland, characteristic of the Breckland of East Anglia	Habitats at this site assumed to be free-draining. Therefore, no potential for hydrological connection. No public access to this SSSI. Therefore, no potential for significant recreational impacts.
Alder Carr SSSI	0.2 km to south of Site	Yes	Wet valley alderwood on fen peat	Situated on land below the Site, therefore may be hydrologically connected to the Site through surface water infiltration into the chalk. No public access to this SSSI. Therefore, no potential for significant recreational impacts.
Roman Road SSSI	Borders northern boundary of Site	Yes	Species-rich calcareous grassland, with adjacent hedgerows.	Habitats at this site assumed to be free-draining. Therefore, no potential for hydrological connection. Public access along this linear site is provided by a bridleway. Potential for increased recreational pressure (and damage to chalk grassland habitats) from walkers, dogs, horses and bikes. Also potential for direct impacts if works take place in close proximity to the SSSI.
Non-statutory Sites / Local Wildlife Sites				
Signal Hill Plantation Grassland CWS	0.9 km west	N/A	Calcareous grassland. Supports populations of nationally scarce plant species few-flowered fumitory <i>Fumaria vaillantii</i> , fine-leaved fumitory <i>Fumaria parviflora</i> , and perennial flax <i>Linum perenne</i> .	Habitats at this site assumed to be free-draining. Therefore, no potential for hydrological connection. No public access to this CWS. Therefore, no potential for significant recreational impacts.
Shelford – Haverhill Disused Railway (Pampisford) CWS	1.4 km northwest	N/A	Calcareous grassland. Supports populations of nationally rare vascular plant broad-leaved cudweed <i>Filago pyramidata</i> .	Habitats at this site assumed to be free-draining. Therefore, no potential for hydrological connection with the Site. No public access to the CWS. Therefore, no potential for significant recreational impacts.

⁹ Within Impact Risk Zone, as shown on www.magic.gov.uk, and relevant for the type of development being proposed.

Designated Site Name	Distance to Site	Within IRZ ⁹	Interest features	Potential for impacts
River Granta CWS	0.3 km south	N/A	Naturally flowing river that supports mature pollarded willows	Situated on land below the Site, therefore may be hydrologically connected to the Site through surface water infiltration into the chalk. Very limited public access to the river, therefore, no potential for significant recreational impacts.
Shelford – Haverhill Disused Railway (Great Abington) CWS	1.4 km south	N/A	Neutral grassland	This CWS is beyond the River Granta, therefore, no potential for hydrological connection with the Site. No public access to the CWS. Therefore, no potential for significant recreational impacts.
Furze Hills RSV CWS	1.4 km southeast	N/A	Supports a population of nationally rare vascular plant lesser calamint <i>Clinopodium calamintha</i> .	Habitats on these road verge sites are free-draining. Therefore, no potential for hydrological connection. No public footpath along these road verges. Therefore, no potential for significant recreational impacts. Potential for impacts if this road is upgraded or services are installed in the verge in connection with the Proposed Development.
Worsted Lodge RSV CWS	0.4 km west	N/A	Calcareous grassland.	
S21 PRV	0.7 km southeast	N/A	Neutral/calcareous grassland. Presence of two local red data species.	
S3 PRV	0.2 km east	N/A	Neutral/calcareous grassland. Presence of two local red data species.	
S36 PRV	0.1 km south	N/A	Neutral/calcareous grassland.	
S52 PRV	0.3 km south	N/A	Neutral/calcareous grassland.	
Ancient Woodland Sites				
There is one parcel of Ancient Woodland within 2 km of the Site: a 1.5 ha parcel of ancient semi-natural woodland at Alder Car SSSI. For Potential Impacts, see Alder Carr SSSI above.				

Table 2: Habitats within the Site

Habitat	Habitat Description	Within / adjacent to Survey Boundary	Potential for impacts
Priority habitat (Habitats of Principal Importance)			
Lowland mixed deciduous woodland	<p>Canopy: various mixtures of beech <i>Fagus sylvatica</i>, ash <i>Fraxinus excelsior</i>, elm <i>Ulmus</i> sp. and some yew <i>Taxus baccata</i> and goat willow <i>Salix caprea</i>. Some woodland is heavily dominated by semi-mature elms, considered likely to be English elm <i>Ulmus procera</i>, but further botanical work at an appropriate time of year would be necessary to ascertain the species. Some non-native species are present including sycamore and very occasional larch <i>Larix decidua</i>, cypress <i>Chamaecyparis</i> sp., and Norway spruce <i>Picea abies</i>.</p> <p>Understorey: Generally sparse with wild privet <i>Ligustrum vulgare</i>, elm suckers, hazel <i>Corylus avellana</i>, hawthorn <i>Crataegus monogyna</i> and ivy <i>Hedera helix</i> in some areas and the non-native shrubs snowberry <i>Symphoricarpos albus</i>, Oregon grape <i>Mahonia aquifolium</i> and cherry laurel <i>Prunus laurocerasus</i> (presumably planted to provide game bird cover).</p> <p>Ground layer: Variable. Common nettle <i>Urtica dioica</i>, black horehound <i>Ballota nigra</i>, ivy, and false brome generally present. Various other woodland species present, including perennial dog's-mercury in one area (Claypit Plantation, see Target Note 11). No ancient woodland indicator species were noted.</p> <p>Designations: Not listed as Ancient Woodland or otherwise designated.</p> <p>Current management: No signs of recent woodland management. Game bird rearing in many areas, likely to be causing nutrient enrichment and damage to ground flora and fauna. Presumed to be heavily grazed by deer.</p> <p>Condition: On a precautionary basis, considered to be in Moderate condition. Detailed condition assessment would be necessary to confirm this.</p> <p>See Target Notes 1, 3, 4, 5, 6, 8, 9, 10, 11 and 12.</p> <p>See Photographs 1 to 10.</p>	12.3 ha within the Survey Boundary, distributed across 10 separate blocks.	<p>Habitat distinctiveness: High</p> <p>Potential for woodland loss, accidental damage, and reductions in connectivity between woodland blocks.</p> <p>Potential for recreational impacts from walkers, dogs and bikes.</p> <p>Potential for air pollution impacts.</p>

Native hedgerows	<p>There is a network of generally straight (presumably enclosure age) hedgerows across the Site. The majority of these are species-poor, mainly dominated by hawthorn (although some by blackthorn <i>Prunus spinosa</i> or elm). Several were noted as species-rich, containing five or more species per 30 m. The ground flora generally included abundant common nettle and black horehound. Parallel hedgerows are present on the main drive at Grange Farm, and for short section of sunken lane or holloway in the centre-south of the Site. Several hedgerows have mature trees present, generally ash.</p> <p>Condition: On a precautionary basis, hedgerows at the Site are considered to be in Moderate condition. Detailed hedgerow assessment would be necessary to confirm this.</p> <p>See Photographs 11 and 12.</p>	14.3 km of hedgerows within Survey Boundary	Habitat distinctiveness: High Potential for hedgerow loss, accidental damage, and for fragmentation of the hedgerow network.
Calcareous grassland	<p>Present offsite to the north along Roman Road SSSI. Various grasses and forbs were noted, including abundant fescue <i>Festuca</i> sp. cock's-foot, wild parsnip, hedger bedstraw and common knapweed.</p> <p>Condition: On a precautionary basis, considered to be in Good condition. Detailed condition assessment would be necessary to confirm this.</p> <p>See Photograph 13. See Target Note 14.</p>	Offsite to north	Habitat distinctiveness: High Potential for recreational impacts from walkers, dogs, and bikes. Potential for air pollution impacts.
Other habitats			
Arable land	<p>The site is dominated by intensively farmed arable land. Field margins down to grass or game bird seed were noted in a few places, but generally the field margins were very narrow. Crops notes were barley and rapeseed. It is understood that sugar beet is also grown at the Site.</p> <p>See Photographs 14 to 16.</p>	338.8 ha within Survey Boundary	Habitat distinctiveness: Low These areas would be lost from the Site, but little potential for habitat impacts due to the low value of this habitat which is intensively farmed (but see 'breeding Birds' and 'Brown hare', considered separately below).

Other woodland - broadleaved	<p>Woodland screening along the western edge of the Site, and in a small copse at the east.</p> <p>Canopy: dominated by young semi-mature English oak, field maple and ash.</p> <p>Understorey: sparse with some hazel.</p> <p>Ground layer: very sparse.</p> <p>Designations: Not listed as Ancient Woodland or otherwise designated.</p> <p>Current management: No signs of recent woodland management.</p> <p>Condition: On a precautionary basis, considered to be in Moderate condition. See Target Notes 7 and 13. See Photograph 17.</p>	1.9 ha within Survey Boundary, in 2 separate parcels.	<p>Habitat distinctiveness: Medium</p> <p>Potential for woodland loss, accidental damage, and reductions in connectivity between woodland blocks.</p> <p>Potential for recreational impacts from walkers, dogs and bikes.</p> <p>Potential for air pollution impacts.</p> <p>Considerable potential for enhancement to increase ecological value.</p>
Other woodland - mixed	<p>Narrow strip of woodland in the west of the Site.</p> <p>Canopy: Dominated by larch, hawthorn and young elm.</p> <p>Understorey: Understorey heavily dominated by snowberry.</p> <p>Ground layer: Sparse. Occasional black horehound.</p> <p>Designations: Not listed as Ancient Woodland or otherwise designated.</p> <p>Current management: Game bird rearing likely to be causing nutrient enrichment and damage to ground flora and fauna. See Target Note 2 See Photograph 18.</p>	0.8 ha within Survey Boundary.	<p>Habitat distinctiveness: Medium</p> <p>Potential for woodland loss, accidental damage, and reductions in connectivity between woodland blocks.</p> <p>Potential for recreational impacts from walkers, dogs and bikes.</p> <p>Potential for air pollution impacts.</p> <p>Considerable potential for enhancement to increase ecological value.</p>
Mixed scrub	<p>This is present in several areas of the Site. It is dominated by hawthorn and blackthorn, with various tall ruderal and grassy vegetation including species such as hemlock <i>Conium maculatum</i>, common nettle and cock's-foot <i>Dactylis glomerata</i>. See Target Note 25. See Photographs 19 and 20.</p>	1 ha within Survey Boundary	<p>Habitat distinctiveness: Medium</p> <p>Potential for woodland loss, accidental damage, and reductions in connectivity between woodland blocks.</p> <p>Potential for recreational impacts from walkers, dogs and bikes.</p> <p>Potential for air pollution impacts.</p> <p>Considerable potential for enhancement to increase ecological value.</p>

Other neutral grassland	<p>Several small areas of neutral grassland are present at the Site, some grazed by sheep (see Target Note 27 and Photograph 21).</p> <p>Structure: Generally a short sward. Some small areas unmanaged.</p> <p>Grasses: include fescue, cock's-foot, and creeping bent <i>Agrostis stolonifera</i>.</p> <p>Forbs: a range of forb species present, including wild carrot and common knapweed in some areas, and ribwort plantain and yarrow <i>Achillea millefolium</i> in many areas. The most species-rich area is in the west of the Site (see Target Note 16 and Photograph xxx).</p>	0.98 ha within Survey Boundary	Some or all of these areas would likely be lost from the Site, but limited potential for habitat impacts due to the limited extent and only moderate distinctiveness of this habitat.
Modified grassland	An area of Modified grassland with perennial ryegrass <i>Lolium perenne</i> and several other grass and forbs species is present east of the cottages at Grange Farm. Presumably used for grazing (see Target Note 19 and Photograph 23).	2.4 ha within Survey Boundary	Habitat distinctiveness: Low Little potential for habitat impacts.
Vegetated garden	Vegetated gardens are present alongside the farmhouse, cottages, and the renovated barn. These contain lawn, trees and shrubs.	Small areas present within Survey Boundary	Habitat distinctiveness: Low No potential for habitat impacts (but see 'Bats', 'Breeding birds' in relation to trees, and BNG below).
Bare ground	Small areas of bare ground are present at the Site such as farm tracks and storage areas. There is an area of unvegetated woodchip (or similar) north of the farmhouse, used for horse riding.	2.9 ha present within Survey Boundary	Habitat distinctiveness: Low No potential for habitat impacts.
Developed land: sealed surface	<p>Buildings and hardstanding. Buildings at the Site include the following:</p> <ul style="list-style-type: none"> • Grange Farm farmhouse and outbuildings (see Photographs 24 to 27) • Grange Farm cottages terrace (see Photograph 28) 	1.4 ha present within Survey Boundary	Habitat distinctiveness: Very low No potential for habitat impacts (but see 'Bats' and 'Breeding birds' below).

Species/ Group	Desk study information	Potential to occur within Site (or in immediately adjacent habitats)	Potential for impacts
Protected species			
Bats	<p>Records within the Site: No</p> <p>Nearest roost: 0.5 km south</p> <p>Species recorded: Common pipistrelle <i>Pipistrellus pipistrellus</i>, soprano pipistrelle <i>Pygmaeus pipistrellus</i>, serotine <i>Cnephaeus serotinus</i>, noctule <i>Nyctalus noctula</i>, Daubenton's bat <i>Myotis daubentonii</i>, natterer's bat <i>Myotis nattereri</i>, brown long-eared bat <i>Plecotus auritus</i></p>	<p>Foraging habitat: Hedgerow and woodland edges within the Site could provide foraging habitat for bats. However, the dominance of intensively farmed arable land, relatively exposed topography, and the lack of wetland habitats limits the overall value of the Site as foraging habitat for bats.</p> <p>Habitat connectivity: Woodland edges and hedgerow could provide commuting routes for local bat populations.</p> <p>Roosts: Mature trees within woodland and hedgerows at the Site could support roosting bats. Buildings and outbuildings at the Site could also support roosting bats.</p> <p>Local landscape: There are woodland parcels and a river near the Site, likely to provide foraging and connecting habitat for bats habitats. These are well connected by hedgerows.</p>	<p>Removal of hedgerows, woodland, grassland and scrub has the potential to remove foraging habitat, and to reduce habitat connectivity for bats. The removal of woodland and trees could affect bat roosting habitat.</p> <p>The Proposed Development may require lighting during the construction phase, and during operation/ Light spill onto retained habitat and greenspace may have potential to affect foraging and commuting bats.</p> <p>There is potential to avoid impacts on habitat connectivity for bats through designing-in dark corridors, e.g. along existing hedgerows and boundary vegetation.</p> <p>There is considerable potential to enhance the Site for bats by providing roosting habitat in the form of bat boxes, new grassland a scrub and woodland habitat, and SuDS drainage areas.</p>
Badger	Badgers are present in the local area.	Active badger sets are present in most of the woodland areas and in some of the hedgerows/field edges. Badger may forage in open habitats at the Site, including on arable crops.	<p>Without appropriate precautions during design and construction there is potential for setts to be disturbed or destroyed and for habitat connectivity across the Site for badgers to be reduced.</p> <p>Without appropriate consideration during the design of the road network there may be potential for increased badger deaths from collisions with vehicles.</p>
Otter and water vole	Closest records from the River Granta, ca.	Suitable habitat for this species is not present on or adjacent to the Site.	Impacts are unlikely.

Species/ Group	Desk study information	Potential to occur within Site (or in immediately adjacent habitats)	Potential for impacts
	0.5 km south of the Site		
Hazel Dormouse	No records from desk study	Very limited potential for this species to be present at the, given the lack of ancient woodland, limited woodland connectivity and the limited understorey in many of the woodland blocks. However, its presence cannot be ruled out without survey.	The removal of woodland, hedgerows and scrub would remove habitat for this species, and if it is present, could affect its local population. Enhancement, buffering and planting of woodland at the Site has potential to provide enhancements for this species.
Breeding Birds	Priority bird species from the search area include dunnock <i>Prunella modularis</i> , bullfinch <i>Pyrrhula pyrrhula</i> , turtle dove <i>Streptopelia turtur</i> , starling <i>Sturnus vulgaris</i> and song thrush <i>Turdus philomelos</i> and farmland species including skylark <i>Alauda arvensis</i> , quail <i>Coturnix coturnix</i> , corn bunting <i>Emberiza calandra</i> , grey partridge and yellowhammer <i>Emberiza citrinella</i> .	Key habitats for birds within the Site include hedgerow, woodland parcels and grassland. These have the potential to support a range of tree and shrub nesting birds, and hedgerows could support farmland species such as yellowhammer and corn bunting. Open fields have the potential to support skylark <i>Alauda arvensis</i> (which was noted during the survey), lapwing <i>Vanellus vanellus</i> and quail. There is potential for barn owl to roost or breed in farm outbuildings.	Removal of woodland, tree and scrub, and/or works in their proximity could affect nesting birds. Loss of these habitats would reduce nesting opportunities, but this could be compensated for through the creation of new woodland hedgerow and scrub habitats, and the installation of bird boxes. Loss of arable habitat has potential to reduce or prevent the breeding of ground nesting birds at the Site. There may be potential for compensation on retained on-site arable or grassland habitat on off-site arable land.
Wintering birds	No records from desk study, except for geese on the lake at	There is potential for the Site to be used by flocks of wintering birds such as gull, some of which are SPIs. However, given the lack of large waterbodies in the vicinity and the	Loss of arable habitat has some potential to affect wintering birds. Impact level would need to be determined by survey.

Species/ Group	Desk study information	Potential to occur within Site (or in immediately adjacent habitats)	Potential for impacts
	Granta Park, ca. 700m south of the Site.	relatively free-draining nature of the Site, this value is likely to be limited.	
Reptiles	No records from within the Site. Records from Shelford – Haverhill Disused Railway (Great Abington) CWS 1.5 km south.	Given the large size of the Site, there is some potential for common reptile species such as common lizard <i>Zootoca vivipara</i> and slow-worm <i>Anguis fragilis</i> to be present in habitats such as woodland edges, hedgerows, field margins, scrub and grassland. However, the high densities of game birds at the Site is likely to limit the value of these areas for reptiles. The arable habitat with dominates the Site is not suitable for these species.	Without appropriate habitat retention or creation in the design there is potential for a reduction in, or loss of reptile habitat at the Site. Without protection measures during construction, there is potential for impacts on individual animals. Together these could reduce local reptile populations. The creation of rough grassland and scrub habitats mentioned under BNG below would provide good habitat for these species, and given sufficient scale, could significantly enhance the Site for these species.

Species/ Group	Desk study information	Potential to occur within Site (or in immediately adjacent habitats)	Potential for impacts
Great crested newt	No records from within the Site or search area.	Great crested newt <i>Triturus cristatus</i> breeds in ponds and forages and hibernates on adjacent areas of terrestrial habitat. There are no ponds within the Site, so the Site does not provide suitable breeding habitat. Standing water was noted in a concrete tank on highways land south of the Site. Its small size, artificial nature and lack of proximity to other ponds suggests low suitability for great crested newts, but this requires verification by survey. Ordnance survey mapping indicates a very limited number of ponds in proximity to the Site, including only one within 250 m.	<p>Ordnance survey mapping indicates that there is one pond within 250m of the Site:</p> <ul style="list-style-type: none"> • A pond 190 m east associated with Rectory Farm <p>There are eight further ponds within 500 m of the Site, four of which are disconnected from the Site due to barriers (i.e. rivers and major roads).</p> <ul style="list-style-type: none"> • A pond 280 m north, associated with Worsted Lodge Farm. • Two ponds 360 and 450 m north, associated with Gunner's Hall. • A pond 447 m southeast, south of Alder Carr SSSI. • A reservoir 377 m west within Chalkpit plantation (beyond the A11). • A balancing pond 40 m west (beyond the A11). • A pond 478 m south (beyond the River Granta). • A pond 418 m southwest associated with the temple (beyond Cambridge Road (A1307)). <p>Given the large distance and poor connectivity between these ponds and the Site, and the dominance of the Site by intensive agriculture the presence of great crested newts is considered unlikely and the Site is unlikely to provide significant habitat for this species.</p>
Other notable species			
Hedgehog (SPI)	Recorded in the search area.	Hedgerow and woodland and grassland parcels within the Site could provide suitable habitat for hedgehog. The arable habitat which dominates the Site provides poor habitat.	Reduced connectivity between hedgerows and woodland, and the placement of roads across the Site could adversely affect this species. However, the potential for habitat creation (e.g., scrub, grassland and woodland), and large numbers of gardens (if appropriately connected) could offer benefits, particularly if connectivity of retained and new green spaces and is maintained.
Brown hare (SPI)	Recorded in the search area.	Several individuals were seen at the Site during the habitat survey. The open arable	Unless it could include retained arable areas, or large areas of rough grassland without access to people or dogs, this species is likely to be lost from the Site under the Proposed Development. A level of off-site compensation may be possible, but a residual impact is likely. Given that

Species/ Group	Desk study information	Potential to occur within Site (or in immediately adjacent habitats)	Potential for impacts
		habitat as the Site is likely to provide good reasonable habitat for this species.	this species is widespread the UK, and the local area has extensive arable habitat suitable for this species, this impact is unlikely to extend beyond the local area.
Common toad (SPI)	Recorded in the search area	Hedgerows woodland and scrub at the Site are suitable for this species. The arable land which dominated the Site provides poor habitat.	Reduced connectivity between hedgerows and woodland, and the placement of roads across the Site could adversely affect this species. However, the potential for habitat creation (e.g., scrub, grassland and woodland) could offer benefits, particularly if connectivity of retained and new green spaces and is maintained.
Invertebrates	Records of several SPI or red list species from the search area including: chalkhill blue <i>Polyommatus coridon</i> , small heath <i>Coenonympha pamphilus</i> and white-letter hairstreak <i>Satyrion w-album</i> butterflies, and several species of moth and beetle. Most were from Granta Park, Roman Road SSSI and Furze Hill SSSI.	Habitats with potential value for invertebrates within the Site include hedgerow, woodland and grassland, and in particular, the adjacent chalk grassland at Roman Road SSSI. The arable land which dominates the Site is likely to be of low value for invertebrates.	Without appropriate habitat retention or creation in the design there is potential for a reduction in, or loss of invertebrate habitat at the Site. However, retention and enhancement of hedgerows and woodland combined with the creation of grassland and scrub habitats mentioned under BNG below would provide good habitat for these species, and given sufficient scale, could significantly enhance the Site for these species.
Plants	Records of range of red listed or scarce plants were returned in the desk study. These fall into two main groups: plants associated with disturbed ground including arable weeds	Habitats with potential value for plants within the Site include hedgerow, woodland and grassland, and particularly the adjacent chalk grassland at Roman Road SSSI. The arable land which dominates the Site is likely to be of low value for invertebrates, but could potentially support rare arable plants, and therefore requires survey.	Without appropriate habitat retention or creation in the design there is potential for a reduction in, or loss of plant habitat at the Site. However, retention and enhancement of hedgerows and woodland (and potential also some areas of grassland) combined with the creation of grassland and scrub habitats mentioned under BNG below would provide good habitat for a wide range of plant species, and given sufficient scale, could significantly enhance the flora of the Site. If rare arable plants are present, these would require dedicated areas and targeted conservation

Species/ Group	Desk study information	Potential to occur within Site (or in immediately adjacent habitats)	Potential for impacts
	<p>such as dwarf spurge <i>Euphorbia exigua</i> and few-flowered fumitory <i>Fumaria vaillantii</i>, and night-flowering catch-fly <i>Silene noctiflora</i> and plants of grassland (particularly chalk grassland) such as rockrose <i>Helianthemum nummularium</i> and hoary plantain <i>Plantago media</i>. Many of the records are from nearby designated sites.</p>		<p>management to provide the regular disturbance that they require to persist.</p>

4 Preliminary BNG Baseline Assessment

Baseline habitats

- 4.1 The baseline habitat types and conditions used in the Biodiversity Net Gain calculation are shown in Table 2 above. The habitat types follow the UK Habitat Classification. This information is based on the habitat survey carried out on 22 and 23 January 2026.

Key results – Baseline habitats

- 4.2 The Statutory Biodiversity Metric yields the following key results. These include the baseline biodiversity value of the Site, and the number of BNG units that would be required to achieve BNG of 10% and 20%. This analysis is for the Site Boundary, not the Survey Boundary.

Table 4: Key BNG results

Habitat type	Onsite baseline	Total units required for 10% BNG	Total units required for 20% BNG
Area habitats	695 biodiversity units	764.5	834 .0
Hedgerows	72 hedgerow units	79.2	86.4
Rivers	0 river units	N/A	N/A

Irreplaceable habitats

- 4.3 There are no irreplaceable habitats present at the Site.

BNG for Area habitats

- 4.4 For context, 6.4 biodiversity units can be delivered by converting 1 ha of arable land into Other neutral grassland or scrub in Moderate condition¹⁰. The following table sets out the areas of habitat creation that would be required for three delivery strategies (onsite, offsite, and half onsite + half offsite). These figures assume the retention of the 11.75 ha of existing woodland at the Site.

Table 5: Indicative area habitat creation requirements (precautionary)

BNG Target	Indicative area required for habitat creation (targeting grassland and scrub habitats in Moderate condition)		
	100% <u>on-site</u> delivery	100% <u>off-site</u> delivery	50/50 on-site/off-site
10%	97 ha (35% of the Site) (includes on-site woodland retention of 11.75 ha)	138 ha (plus on-site woodland retention of 11.75 ha)	57 ha onsite (21% of the Site) 57 ha off-site (plus on-site woodland retention of 11.75 ha)
20%	107 ha (39% of the Site) (includes on-site woodland retention of 11.75 ha)	153 ha (plus on-site woodland retention of 11.75 ha)	63 ha onsite (23 % of the Site) 63 ha offsite (plus on-site woodland retention of 11.75 ha)

- 4.5 The above calculation is precautionary, in that it assumes that only moderate habitat condition is achieved. If available phosphorous levels in the soils at the Site (and off-site area) are low (i.e. a phosphorous index of 1 or 0), then it would be realistic to achieve Good condition for grassland and

¹⁰ The baseline value of arable land is 2 units per ha, and the creation of Other neutral grassland or scrub in Moderate condition yields 6.69 units per ha. The difference (6.69 units per hectare) is the biodiversity gain.

scrub habitats (Natural England, 2008). If this is the case then correspondingly smaller areas of habitat creation would be required, as shown in the following table.

Table 6: Indicative area habitat creation requirements (less precautionary)

BNG Target	Indicative area required for habitat creation (targeting grassland and scrub habitats in Good condition)		
	100% on-site delivery	100% off-site delivery	50/50 on-site/off-site
10%	77 ha (28% of Site) (includes on-site woodland retention of 11.75 ha)	101 ha (plus on-site woodland retention of 11.75 ha)	44 ha onsite (16% of Site) 44 ha offsite (plus on-site woodland retention of 11.75 ha)
20%	86 ha (31 % of Site) (includes on-site woodland retention of 11.75 ha)	112 ha (plus on-site woodland retention of 11.75 ha)	49 ha onsite (18% of Site) 49 ha offsite (plus on-site woodland retention of 11.75 ha)

BNG for Hedgerows

4.6 For context, 6.69 hedgerow units can be delivered by creating 1 km of native species-rich hedgerow in Moderate condition. The following table sets out the lengths of hedgerow creation that would be required for the three delivery strategies, assuming all current hedgerows at the Site are retained.

Table 7: Indicative hedgerow creation requirements

BNG Target	Indicative hedgerow lengths required for habitat creation (targeting native species rich hedgerow in Moderate Condition).		
	100% on-site delivery	100% off-site delivery	50/50 on-site/off-site
10%	1.1 km	1.1 km	0.55 km on-site 0.55 km off-site
20%	2.2 km	2.2 km	1.1 km on-site 1.1 km off-site
For context the current baseline hedgerow length at the Site is approximately 12 km.			

Rivers

4.7 There are no rivers or ditches at the Site (as defined in the UK habitat classification), due to the permeable chalk geology of the Site. Therefore, there is no requirement for any BNG in river units to be provided for the Proposed Development.

Design advice

4.8 The above indicative examples assume that all area habitat creation is other neutral grassland in Moderate or Good condition, and that all hedgerow creation is native species rich hedgerow in Moderate condition. They assume that the remainder of the site is developed without greenspace.

4.9 The key result is that around 30% of the Site is likely to be required for habitat creation for onsite delivery of 10% BNG, and around 35% required for onsite delivery of 20% BNG. Once a detailed layout is available, a more detailed and accurate BNG calculation can be carried out which reflects the detail of proposed habitat creation and proposed urban greenspace and gardens. Detailed baseline habitat condition assessments and soil information will also be necessary to produce a more accurate BNG calculation.

4.10 As the design evolves, the post-development calculation will need to consider in more detail the habitats that are avoided and retained, on-site habitat creation and landscaping.

- 4.11 As set out in the main submission report, such a preliminary assessment of the emerging Spatial Framework indicates that the development at the Site will be able to achieve the requisite minimum 10% BNG on site. There are options for delivery of 20% BNG, should this be necessary or justified, through early delivery of onsite greenspace, enhancements on adjoining farmland, and/or through funding habitat creation works at new or established habitat banks in the vicinity of the Site.

5 Key Ecological Constraints and Recommendations

National Planning Policy Framework and mitigation hierarchy

- 5.1 Relevant national policy and legislation is shown in Appendix 1. At a national policy level, the National Planning Policy Framework (NPPF) sets out that when determining planning applications for Proposed Development, the following principles should apply; this is typically referred to as the mitigation hierarchy. In summary, paragraph 193a of the NPPF advises that ‘if significant harm to biodiversity resulting from a development cannot be avoided... adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.’ The NPPF also requires that opportunities to improve biodiversity in and around developments should be integrated as part of their design (NPPF paragraph 193d), (see Appendix 1). Proposed Developments that are within the scope of the statutory biodiversity gain framework are also subject to ‘the biodiversity gain hierarchy’ which must also be applied to development applications.
- 5.2 The biodiversity gain hierarchy has a sequential application as set out in the Biodiversity net gain Planning Practice Guidance (PPG) (GOV.UK, May 2024). In summary the biodiversity gain hierarchy requires, for habitats scoring 4 or more for distinctiveness, demonstration of how and why adverse on-site effects are or cannot be avoided or mitigated for and/or how losses are compensated for on-site, then off-site using units or through the purchase of biodiversity credits.
- 5.3 There are clear distinctions between the two hierarchies – the NPPF hierarchy can be used as a reason for refusal of planning permission whereas the biodiversity gain hierarchy cannot. The biodiversity gain hierarchy is something that GCSP, as the local planning authority and decision maker, ‘must take account of’ at the Biodiversity Gain Plan (BGP) preparation stage which is a post consent regulatory requirement, hence why it cannot be used as a reason for refusal. GCSP will, however, need to have sufficient certainty at the application stage that the Government’s biodiversity gain objective can be met hence evidence of the biodiversity gain hierarchy being considered on application submission is likely to be requested.
- 5.4 The recommendations below should be referred to in conjunction with the Ecological Constraints plan provided at Figure 3.

Adopted Local policy

- 5.5 Key policies relating to ecology and nature conservation in the adopted 2018 South Cambridgeshire Local Plan are:
- Policy NH/4: Biodiversity – this includes the statements that: ‘*new development must aim to maintain, enhance, restore or add to biodiversity*’ and ‘*the built environment should be viewed as an opportunity to fully integrate biodiversity within new development through innovation*’. It also requires survey and mitigation for protected species and for priority habitats and priority species, and provides protection for irreplaceable habitats.
 - Policy NH/5: Sites of Biodiversity or Geological Importance - this includes the statement that “*proposed development likely to have an adverse effect on land within or adjoining a Site of Biodiversity or Geological Importance, as shown on the Policies Map (either individually or in combination with other developments), will not normally be permitted*”.
 - Policy NH/6: Green Infrastructure – This sets out the objective to conserve and enhance green infrastructure.
 - Policy NH/7: Ancient Woodlands and Veteran Trees - This sets out the objective to conserve ancient woodlands and trees and to mitigate impacts where necessary.

Draft local policy

- 5.6 The draft Greater Cambridgeshire Local Plan includes the following key policies relating to ecology and nature conservation and relevant to the Site:

- Policy BG/BG: Biodiversity and geodiversity – sets out a requirement for major developments to provide a minimum 20% BNG, to be provided on-site where feasible and effective. It also sets out a requirement for survey and assessment for developments that may affect biodiversity, and states that “*development proposals which have a direct or indirect adverse effect on sites of biodiversity or geological importance (as identified on the Policies Map) will not be permitted. Exceptions will only be made where the benefits of the development significantly outweigh any adverse impacts*”. It also requires protection and enhancement for irreplaceable habitats, and mitigation for recreational impacts.
- Policy BG/GI: Green and blue infrastructure – requires major development to demonstrate how green and blue infrastructure has been integrated into the design at an early stage, has a greening factor requirement of 0.4 for residential development, and mentions a number of localised and dispersed green infrastructure initiatives including: Gog Magog hills and chalkland fringe, Pollinator corridors, Woodland expansion and resilience, Urban greening and 'de-paving', Allotments and community gardening, and Environmentally friendly farming.
- Policy BG/TC: Improving tree canopy cover and the tree population – provides protection for existing trees and hedgerows, and a requirement for a Tree Canopy Cover Assessment, to show how it will achieve a minimum future canopy cover of 30% (or a figure agreed with the planning authority) on-site.

5.7 It also includes policies to protect, provide and enhance open spaces.

5.8 In relation to the Grange Farm site (Policy S/GF), it also mentions the preservation of chalk hills and woodlands, maximising opportunities for ecological enhancement, appropriately responding to (and mitigating recreational pressure on) Roman Road SSSI and other designated sites, preserving the River Granta (in Little Abington) and providing dark corridors.

Local Nature Recovery Strategy (LNRS)

5.9 One part of the site is currently identified in the LNRS for habitat creation, located along the western boundary with the A11. Under woodland measures, the LNRS is proposing traditional orchard, but this may be an error, and woodland may have been intended (as the land identified connects existing woodland blocks). Roman Road SSSI is also identified in the LNRS, although this is outside the Site's northern boundary.

5.10 Otherwise, there is little relationship between the Site and the LNRS. Therefore, the project could emphasise its potential to contribute to the wider LNRS objectives.

Roman Road SSSI

5.11 Off-site along northern boundary. The Site is within Natural England's Impact Risk Zone for this SSSI. Designated for chalk grassland habitat and plants. Likely the main issue of the whole development for Natural England. The draft local plan includes the statement that “*development will mitigate evidenced recreational impacts on designated biodiversity and geodiversity sites, including providing Strategic Alternative Green Space for development proposed within Natural England's Impact Risk Zones for Sites of Special Scientific Interest*”.

5.12 Natural England and the planning authority would expect to see a buffer of native vegetation (e.g. chalk grassland / scrub); 20 m is likely to be sufficient for this, given that the SSSI itself is only this width, so long as light spill onto the SSSI and buffer can also be avoided.

5.13 Also, without mitigation, there would likely be an impact on the SSSI from increased recreational use (walkers, dogs, horses, bikes), and Natural England would expect to see a mitigation strategy to address this.

5.14 The two main options would be to compensate for damage through the creation of high-quality chalk grassland habitat (this would likely require soil stripping) and/or the creation of alternative

greenspace/travel routes to reduce the pressure on the Roman Road route. There is likely to be potential for diverting the PRow itself to a parallel route to protect the SSSI, given its historic interest.

- 5.15 These two approaches have been integrated into an illustrative design response for the northern edge of the Site, as set out in the main submission report. This uses zoning, habitat creation, dark corridors and alternative (and more accessible) natural greenspace and access routes to avoid, mitigate and compensate for recreational and other potential impacts on the SSSI. Consultation with Natural England has also been undertaken and recent advice from Natural England (Appendix 4) will be given further consideration when developing detailed design proposals for the northern edge of the site.

Alder Carr SSSI

- 5.16 This SSSI in a wetland with fen peat. There is potential for this to receive alkaline groundwater from the underlying chalk aquifer. Maintaining baseline levels of infiltration and aquifer recharge at the Site is likely to be sufficient to avoid impacts on this SSSI but a hydrological and hydrogeological assessment will be necessary to confirm this and is likely to be requested by Natural England.

River Granta

- 5.17 This chalk stream receives alkaline groundwater from the underlying chalk aquifer. Maintaining baseline levels of infiltration and aquifer recharge at the Site is likely to be sufficient to avoid impacts on this SSSI but a hydrological and hydrogeological assessment will be necessary to confirm this.

Non-statutory sites

- 5.18 There is potential for protected roadside verge sites to be affected if there are road upgrades in the vicinity of the Site, or installation of services in the verge. Retention and rapid replacement of turf would be appropriate mitigation to minimise these impacts. Other impacts on non-statutory sites are unlikely.

Woodland on-site

- 5.19 Various blocks of semi-natural (not ancient) woodland are present at the Site. The woodland contains a range of mainly native tree species including abundant elms, but also ash, beech, oak and yew. Few mature trees. Variable habitat quality. Deer (muntjac, roe and fallow) and grey squirrels appear to be abundant at the Site and the woodlands appear to suffer heavily from deer grazing. Game bird rearing takes place and is likely to be affecting the ground flora through nutrient enrichment and the invertebrate fauna through predation.
- 5.20 A safe approach would be to retain, buffer and enhance all existing woodland out to 15m and to provide a level of connectivity between them via woodland, trees, or scrub. Given the prevalence of elm and ash, a long-term plan for under or replanting with trees not susceptible to disease would be worth consideration.

Hedgerow network

- 5.21 Mainly species-poor, but some species-rich (e.g. on northern boundary) and/or valuable for other reasons (e.g. partial double hedgerow along sunken lane in south of site).
- 5.22 The council would expect this network to be retained as far as possible. However, there will be some scope to punch through or move hedgerows where necessary (we would need to justify this in each case). Hedgerow translocation and planting from scratch are low risk mitigation options (i.e. they tend to work well).

Farmland wildlife

- 5.23 The Site, being dominated by large fields of open arable land, supports species such as brown hare and skylark (both noted during survey), lapwing, linnet, yellowhammer and grey partridge (the latter

species reported by the landowner). These are priority species, so require consideration in planning decisions, but they are not fully protected in the way that badgers or bats are.

- 5.24 These farmland species would require onsite or offsite mitigation through the creation of open habitats such as grassland that are protected from public access, or the enhancement of offsite open habitats (such as a grassland or arable land put into some kind of sensitive management). Full (i.e., like for like) mitigation is unlikely to be possible within the Site itself. It may be possible to aim to retain most of these species on-site, but at reduced population sizes, e.g., via large areas of open space with no dog access. Off-site mitigation options are also possible using off-site arable farmland, through certain environmental management practices (such as rough grassland field margins, skylark breeding plots, or fallow rotations). There are likely to be some residual impacts on farmland wildlife that cannot be mitigated and these would need to be considered in the planning balance.

Badgers

- 5.25 All of the woodland parcels at the Site have badger setts, and there are several further setts within field margins/hedgerows. Clearly the Site has a high population of this species, and maintaining the suitability and connectivity of the Site for badgers will be important to meet local policy (relating to protected species), legal compliance during construction, and for public acceptability of the development.
- 5.26 A safe approach would be to buffer all woodland to 15m, (20m where setts are on the edges of woodland), and setts outside woodland to 20 m. However, setts can and do move over time, and it is possible to close individual badger setts under license. If this is done to a main sett, a nearby replacement sett will need to be constructed first. Outlier setts (i.e. individual holes) can be closed under license without replacement. At this stage, acknowledging the widespread occurrence of this species at the Site, the buffering of woodland, and the provision of green corridors suitable for badgers in the design (to allow them to move between woodlands and areas of greenspace) should be sufficient consideration.
- 5.27 It may be necessary (for an outline planning application) to carry out survey work to determine the numbers of clans of badgers using the Site, and their respective territories, as this will affect the assessment of impacts if one clan is left with very little space.
- 5.28 Depending on the proposed road layout, it may be appropriate to include badger tunnels in certain areas of the Site (e.g. concrete pipes under roads with fencing designed to encourage their use by badger).

Bats

- 5.29 The Site has potential to support roosting bats (in woodland and hedgerow trees and buildings), reptiles (in field margins and hedgerows) and possibly dormouse (in woodland and hedgerows). These are protected species that, if present, would require appropriate mitigation measures. The main design consideration would be the retention and buffering of woodland, and where possible, hedgerows, and the provision of green and dark corridors suitable for these species within the development. Works to buildings or trees containing bat roots would require a license from Natural England.

Great crested newts

- 5.30 Given the lack of ponds on or near the Site, this species is considered unlikely to be present there and is unlikely to be a constraint to the Proposed Development. If safe access is possible, and access permission can be obtained, it is recommended that the concrete tank just south of the Site boundary is subject to DNA-based survey for this species.

Biodiversity Net Gain (BNG)

- 5.31 There is currently a statutory requirement for a 10% BNG under the Environment Act 2021. The draft local plan includes a 20% BNG target. BNG can be achieved through on-site habitat creation, off-site habitat creation or the purchase of biodiversity units from a commercial provider. For example,

there is a Habitat bank almost adjacent to the Site, immediately to the northwest of the A11: Lower Farm Habitat Bank. This is a County Council site offering grassland, hedgerow and woodland biodiversity units. There are a number of other habitat banks further afield in the county.

- 5.32 As an approximate guide, around 30% of the Site are would be required for habitat creation to achieve a 10% onsite BNG and around 35% of the Site area would be required to achieve a 20% onsite BNG.

Habitat Creation

- 5.33 The Site is underlain by chalk, generally with thin soils. The most appropriate habitats for the Site would be chalk grassland, woodland (with beech and yew), and neutral grassland and scrub. Given the porous nature of the soils and geology, wetland habitats and waterbodies are not a natural feature of the landscape and should not be a target for habitat creation. However, where this is necessary for drainage reasons (e.g. the creation of drainage wetlands), wet or seasonally wet habitat would provide some ecological value, which should be maximized through appropriate native planting.
- 5.34 Since the soils at the Site are likely to be drought prone, this should be borne in mind in choosing the planting mixes, both for areas of natural habitat, and for trees and other planting in more urban areas. This creates an opportunity to plant a wide range of drought tolerant pollinator friendly plant species. Rain gardens may also be appropriate, although careful species selection will be needed to match the likely moisture regime in these areas.

Main habitat creation options at the Site:

Chalk grassland

- 5.35 This is a high value and locally appropriate habitat. It would meet the definition of the priority habitat 'Lowland calcareous grassland'. However, the creation of this habitat typically requires very thin soils and low soil nutrient levels to succeed. The creation of chalk grassland at the Site is likely to require soil removal (pending soil analysis to determine its depth and nutrient content). The creation of this habitat would therefore be appropriate in small areas or pockets, such as alongside, or to provide compensation for impacts on Roman Road SSSI. But this approach is likely to be too costly for widespread use across the Site. Also, because of the time it takes to establish, and the perceived difficulty of creation, this habitat scores a relatively low BNG score (i.e., 2.77 biodiversity units for 1 ha in moderate condition).

Woodland

- 5.36 Woodland creation at the Site using beech and yew (and potentially also elm, pending further botanical work in the growing season to establish the exact species currently present on-site) is appropriate. There is also scope to enhance the existing woodland at the Site through conservation management, including thinning of some of the non-native canopy trees (such as *leylandii* and larch), supplemental planting of shrubs (e.g. hazel and wild privet) and ground flora, and fencing to prevent deer access.
- 5.37 Woodland is a valuable and locally appropriate habitat. The creation of woodland will be of particular use to link existing woodland parcels, and to provide visual screening. Woodland creation should target the woodland type called 'Other woodland – broadleaved' within the Defra BNG metric. However, the BNG score for woodland is relatively low (i.e., 4.69 biodiversity units for 1 h in moderate condition), due to the long time that this habitat takes to reach maturity. Therefore, woodland creation is probably not suitable as the main target for habitat creation at the Site.

Other neutral grassland and scrub

- 5.38 These two habitats (or ideally a mosaic of the two, in the form of scattered scrub within grassland) are considered the most appropriate for widespread habitat creation at the Site, to provide biodiversity benefits for range of species and to allow on-site BNG to be maximized. They both yield 6.69 biodiversity units for the creation of 1 ha in moderate condition, and 8.4 for good condition (which may be possible at the Site, pending soil information).

- 5.39 At this stage, this rough grassland, with an element of chalk grassland flora, is considered a more appropriate habitat for extensive habitat creation at the site than targeting a pure chalk grassland. This is because the agricultural history of the Site means that the soil above the chalk geology is likely to be nutrient enriched, and the grassland is likely to have a character somewhere between 'Lowland calcareous grassland' and 'Other neutral grassland'.
- 5.40 The addition of pockets of, or scattered, chalkland scrub would increase the landscape interest, screening value, and biodiversity value of the grassland, by providing structure and cover. Together, this rough grassland with scattered scrub would provide good habitat for a wide range of birds (including some species of farmland birds), invertebrates, small mammals and reptiles. It would be well adapted to the conditions of the Site. Long-term management would be by mowing in rotation (i.e. not all parts at once) every 1-2 years, or light grazing.

6 Further work required

- 6.1 The desk study and habitat survey undertaken to date are considered sufficient to inform the proposed allocation of the site at Regulation 19 stage (i.e. Submission Draft Local Plan). However, further ecological survey and assessment will be necessary to support an outline planning application, including the more detailed masterplan and greenspace design that would form part of this. This work is as follows:

Ecological Surveys

- Wintering bird survey
- Badger survey
- Breeding bird survey
- DNA-based great crested newt survey of concrete tank south of Site
- Dormouse survey of hedgerows and woodlands
- Ground level bat assessment of trees
- Internal and external bat inspection of buildings
- Further bat survey of trees to be lost
- Site-wide bat activity survey
- Reptile survey
- Habitat condition assessment for BNG
- Arable plant survey
- Hedgerow assessment

- 6.2 A Tree Canopy Cover Assessment, Greening Factor Assessment and hydrological and hydrogeological assessment are also likely to be required. These are outside the remit of ecology and would typically be provided by a landscape architect.

Consultation

- 6.3 It is recommended that the scope of surveys required to support an outline planning application should be confirmed with the planning authority in advance of submission.

Ecological Mitigation

- 6.4 To adhere to the ecological mitigation hierarchy, and to minimise ecological impact of the Proposed Development, it is recommended that the advice in the previous section of this report is factored into its design, including layout and greenspace. For example, the design should seek to retain and buffer the existing network of woodland and hedgerows and provide connectivity of badgers. Planting should include appropriate native species of trees, shrubs, grasses and forbs, focusing on species adapted to free-draining neutral and calcareous soil conditions. The potential for climate change to affect the future vegetation and tree planting should be considered at the detailed design stage. This could influence species selection, to include, for example, some non-native planting. This should be subject to careful ecological consideration.
- 6.5 The requirement for additional ecological mitigation would be assessed and specified in the Ecological Impacts Assessment (EclA) and other documents specified below.

Further Assessment and Reporting

- 6.6 Further ecological assessment likely to be necessary to support a planning application for the Proposed Development are:

- **Ecological Impact Assessment (EclA) report:** this would be carried out once the further ecological surveys have taken place and once a finalised site layout is available. It would assess the ecological impacts of the finalised design. This report will need to accompany the planning submission.
- **Biodiversity Net Gain report:** this would set out detail on the BNG assessment of the finalised design, including the approach for delivering biodiversity net gain, which may include on-site or off-site habitat creation, or a combination of both.
- **Roman Road SSSI Mitigation Strategy:** this would set out the approach to mitigating the effects of increased recreational pressure on the Roman Road SSSI. It may include methods to avoid, mitigation, and/or compensate for impacts to the SSSI, and may include measures to provide enhancements to the SSSI. Further consideration will be given to the advice provided by Natural England (Appendix 4) during detailed design of the green infrastructure for the development.

6.7 The following ecology-related documents are likely to be required post planning, and subject planning conditions:

- **Biodiversity Gain Plan:** this would set out the finalised BNG calculation and the finalised approach to on-site habitat creation and/or off-site habitat creation.
- **Habitat Management and Monitoring Plan (HMMP):** this would set out the detail of the actions necessary to achieve the on-site portion of habitat creation and/or enhancement for BNG.
- **Construction Ecological Management Plan (CEMP):** this would set out the protection measures necessary to avoid an minimise ecological impacts during the construction process.

Species Licencing

6.8 Species licencing from Natural England may be required if protected species could be affected by the Proposed Development. For example, via impacts to bat roosts, badger setts, or habitat used by great crested newt or dormouse. Where further survey and assessment work is required to determine the need for licencing this is set out in the list above.

7 Conclusion

- 7.1 The intensive arable land use which dominates the Site has limited ecological value, except for supporting farmland wildlife species (which are Priority species but not protected species). The main ecological value of the Site is limited to the woodland copses and, to a lesser extent the network of hedgerows at the Site. There are extensive badger setts across the Site. The offsite Roman Road SSSI is also of ecological value.
- 7.2 The Proposed Development would significantly reduce the value of the Site for farmland wildlife priority species. However, assuming that most of the woodland and hedgerow network are retained, that recreational impacts to the Roman Road SSSI can be avoided or compensated, then other significant ecological impacts are unlikely. Irreplaceable habitat will not be affected. There may be potential to provide some compensation for the effects on farmland wildlife through local off-site habitat management projects.
- 7.3 The protection of badgers at the Site would require habitat connectivity to be designed into the Proposed Development but is likely to be achievable. Appropriate licenses would be required for works near setts where this is unavoidable.
- 7.4 The Proposed Development offers opportunities to enhance the existing network of woodland and hedgerows, and to provide habitat connectivity for the Roman Road SSSI through the creation of buffering and connecting habitat, and through habitat management.
- 7.5 Given the large size of the Site, and the low baseline habitat value of most of it, the Proposed Development also offers an opportunity to create significant areas of new habitats such as grassland, scrub and woodland. As set out in the main submission report, a preliminary assessment of the emerging Spatial Framework indicates that development at the Site will be able to achieve the requisite minimum 10% BNG on site. There are options for delivery of 20% BNG, should this be necessary or justified, through early delivery of onsite greenspace, enhancements on adjoining farmland, and/or through funding habitat creation works at new or established habitat banks in the vicinity of the Site.
- 7.6 Overall, there is potential for Development at the Site to align with local and national planning policy, and with nature conservation legislation.

8 References

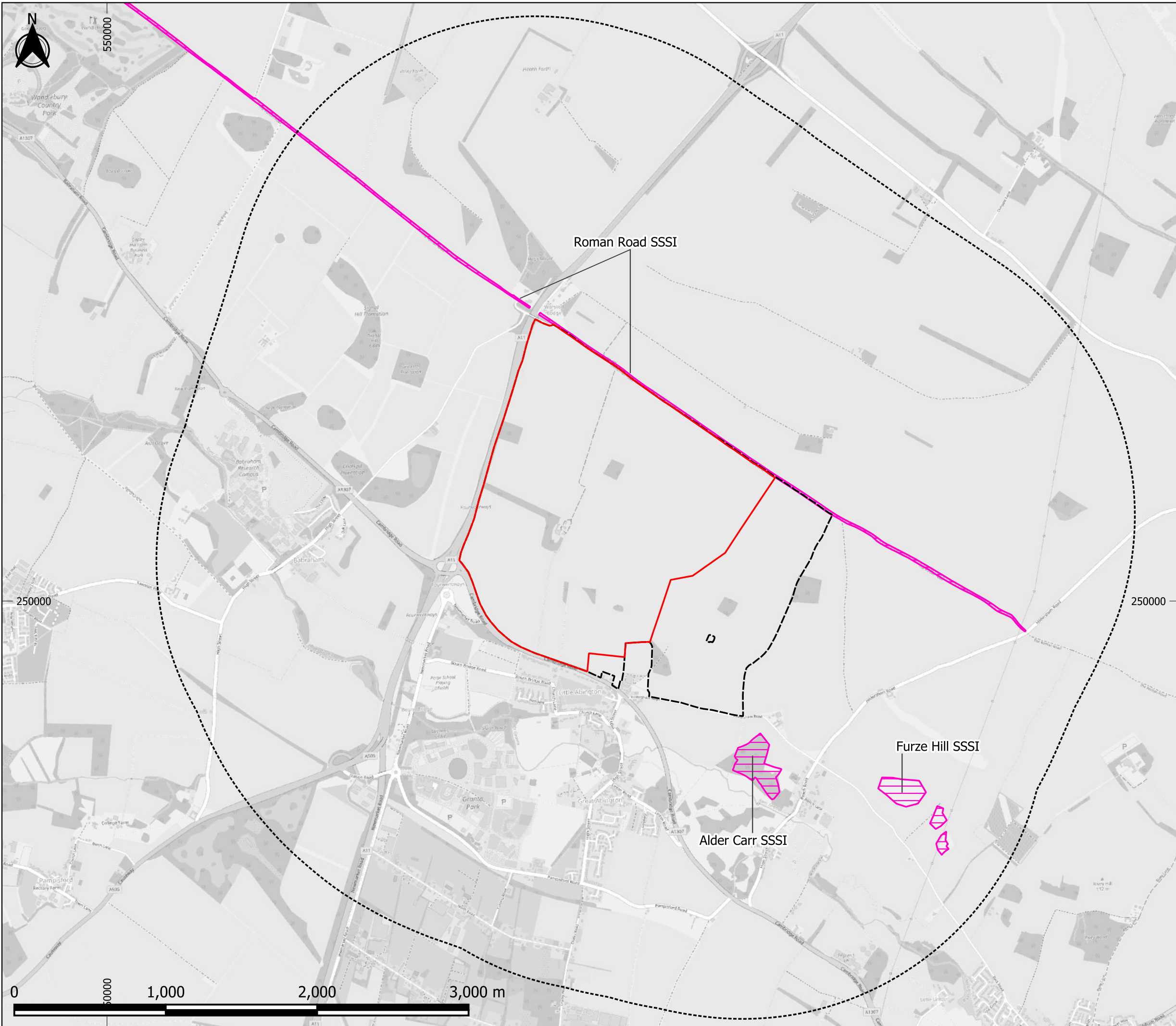
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9 Figures

Figure 1: Statutory designated sites within 2 km of the Site

Figure 2: Baseline Habitat Plan

Figure 3: Ecological Constraints Plan



- Legend
- Site boundary
 - 2km from site boundary
 - Sites of Special Scientific Interest
 - Survey boundary



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PROJECT TITLE
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 Figure 1: Statutory designated sites within 2 km of the Site

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- Legend
- Site boundary
 - Survey boundary
 - Target note
 - Native Hedgerow (h2NE5)
 - Native Species Rich Hedgerow (h2NE2)
 - Native Species Rich Hedgerow with trees (h2NE1)
 - Arable field margins game bird mix
 - Artificial unvegetated, unsealed surface
 - Cereal crops
 - Developed land; sealed surface
 - Lowland mixed deciduous woodland
 - Mixed scrub
 - Modified grassland
 - Other neutral grassland
 - Other woodland; broadleaved
 - Other woodland; mixed
 - Vegetated garden
 - Bare ground



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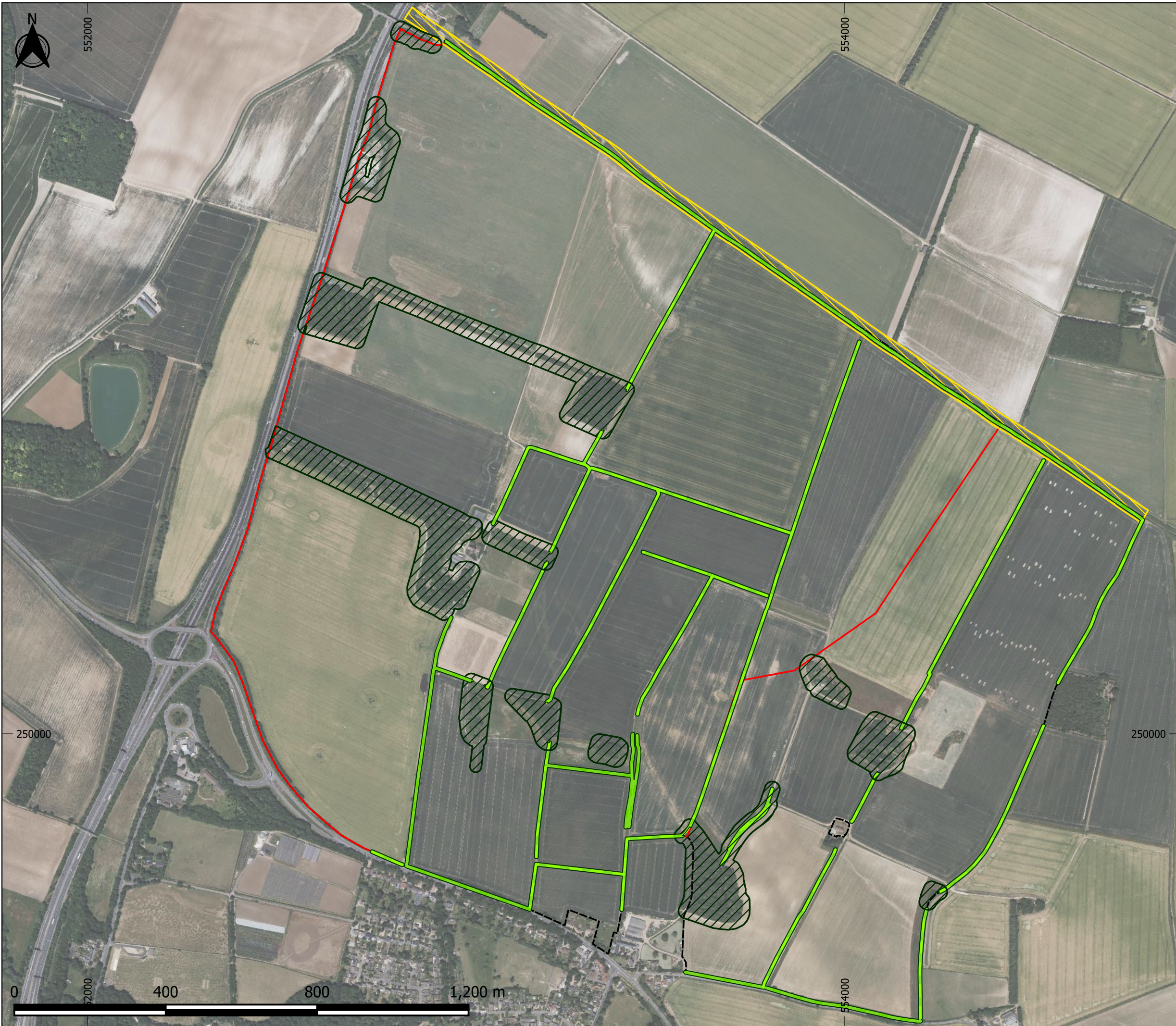
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 Figure 2: Baseline Habitat Plan

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- Legend
- Site boundary
 - Hedgerow buffer
 - Roman Road SSSI buffer
 - Woodland and badger buffer
 - Survey boundary



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PROJECT TITLE
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DRAWING TITLE
 Figure 3: Ecological Constraints Plan

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10 Photographs



Photograph 1. Lowland mixed deciduous woodland at Claypit Plantation in the west of the Site. See Target Note 1.



Photograph 2. Lowland mixed deciduous woodland at New Plantation, northeast of Grange Farm farmhouse. See Target Note 3.



Photograph 3. Lowland mixed deciduous woodland west of Grange Farm farmhouse. See Target Note 4.



Photograph 4. Lowland mixed deciduous woodland south of Grange Farm farmhouse. See Target Note 5.



Photograph 5. Lowland mixed deciduous woodland in former chalk pit. See Target Note 8.



Photograph 6. Lowland mixed deciduous woodland dominated by elms. See Target Note 10.



Photograph 7. Lowland mixed deciduous woodland at Claypit Plantation near Rectory Farm in the south of the Site. See Target Note 11.



Photograph 8. Lowland mixed deciduous woodland with old game bird rearing pen at Claypit Plantation near Rectory Farm in the south of the Site. See Target Note 11.



Photograph 9. Lowland mixed deciduous woodland at Sandpit Plantation. See Target Note 12.



Photograph 10. Mature English oak at Sandpit Plantation. See Target Note 12.



Photograph 11. Native species-poor hedgerow in the north of the Site.



Photograph 12. Native species-rich hedgerow with trees, south of Grange Farm farmhouse.



Photograph 13. Calcareous grassland at Roman Road SSSI just beyond the northern boundary of the Site. See Target Note



Photograph 14. Ploughed arable land. View across the Site from the southwestern corner.



Photograph 15. Ploughed arable land. North of renovated barn in the east of the Site.



Photograph 16. Young cereal crop on arable land in the centre-east of the Site.



Photograph 17. Young broadleaved plantation woodland on the south-western boundary of the Site.



Photograph 18. Other woodland mixed, forming a narrow strip in the west of the Site, west of New Plantation.



Photograph 19. Mixed scrub in a deep pit in north-east of the Site. See Target Note 25.



Photograph 20. Mixed scrub in a deep pit in north-east of the Site. See Target Note 25.



Photograph 21. Sheep grazed Other neutral grassland in the east of the Site. See Target Note 27.



Photograph 22. Strim of other neutral grassland in the east of the Site, north of Claypit Plantation. See Target Note 16.



Photograph 23. Modified grassland east of the terrace of farm cottages at Grange Farm.



Photograph 24. Farmhouse at Grange Farm.



Photograph 25. Outbuildings at Grange Farm.



Photograph 26. Outbuildings at Grange Farm.



Photograph 27. Outbuildings at Grange Farm.



Photograph 28. Cottage at Grange Farm.

Appendix 1: Summaries of Relevant Policy, Legislation and Other Instruments

This section briefly summarises the legislation, policy and related issues that are relevant to the main text of the report. The following text does not constitute legal or planning advice.

National Planning Policy Framework (England)

The Government issued the National Planning Policy Framework (NPPF) in December 2024 (last updated 07 February 2025). Text excerpts from the NPPF are shown where they may be relevant to planning applications and biodiversity including protected sites, habitats and species.

The Government sets out the three objectives for sustainable development (economy, social and environmental) at paragraphs 8-10 to be delivered through the plan preparation and implementation level and 'are not criteria against which every decision can or should be judged' (paragraph 9). The planning system's environmental objective is 'to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity...' (paragraph 8c).

In conserving and enhancing the natural environment, the NPPF (Paragraph 187) states that 'planning policies and decisions should contribute to and enhance the natural and local environment' by:

- Protecting and enhancing...sites of biodiversity value... '(in a manner commensurate with their statutory status or identified quality in the development plan)'.
- Recognising the wider benefits from natural capital and ecosystem services... including... trees and woodland.
- Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs.
- Preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability.

In respect of protected sites, at paragraph 188, the NPPF requires local planning authorities to distinguish, at the plan level, '...between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value...take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.' A footnote to paragraph 188 refers to the preferred use of agricultural land of poorer quality if significant development of agricultural land is to take place.

Paragraph 192 refers to how plans should aim to protect and enhance biodiversity. Plans should: 'identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity [a footnote refers to ODPM Circular 06/2005 for further guidance in respect of statutory obligations for biodiversity in the planning system], wildlife corridors and stepping stones that connect them and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation;' and to 'promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.'

Paragraph 193 advises that, when determining planning applications, '...local planning authorities should apply the following principles:

- 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;
- development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments) should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that

make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

- development resulting in the loss or deterioration of irreplaceable habitats, (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.’

In paragraph 194, the following should be given the same protection as habitats sites:

- potential Special Protection Areas and possible Special Areas of Conservation;
- listed or proposed Ramsar sites; and
- sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.’

In paragraph 195 the NPPF refers back to sustainable development in relation to appropriate assessment and states: ‘the presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site’.

In paragraph 196, the NPPF refers to planning policies and decisions taking account of ground conditions and risks arising from land instability and contamination at sites. In relation to risks associated with land remediation account is to be taken of ‘potential impacts on the natural environment’ that arise from land remediation.

In paragraph 198 the NPPF states that planning policies and decisions should ensure that development is appropriate to the location and take into account likely effects (including cumulative) on the natural environment and, in doing so, they ‘should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation’ (paragraph 198c).

Government Circular ODPM 06/2005 Biodiversity and Geological Conservation (England only)

Paragraph 98 of Government Circular 06/2005 advises that “the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. Local authorities should consult Natural England before granting planning permission. They should consider attaching appropriate planning conditions or entering into planning obligations under which the developer would take steps to secure the long-term protection of the species. They should also advise developers that they must comply with any statutory species’ protection provisions affecting the site concerned...”

Paragraph 99 of Government Circular 06/2005¹¹ advises that “it is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted”.

Standing Advice (GOV.UK - England only)

The GOV.UK website provides information regarding protected species and sites in relation to development proposals: ‘Local planning authorities should take advice from Natural England or the Environment Agency

¹¹ ODPM Circular 06/2005. *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impacts within the Planning System* (2005). HMSO Norwich.

about planning applications for developments that may affect protected species.' GOV.UK advises that 'some species have standing advice which you can use to help with planning decisions. For others you should contact Natural England or the Environment Agency for an individual response.'

The standing advice (originally from Natural England and now held and updated on GOV.UK¹²) provides advice to planners on deciding if there is a 'reasonable likelihood' of protected species being present. It also provides advice on survey and mitigation requirements.

When determining an application for development that is covered by standing advice, in accordance with guidance in Government Circular 06/2005, Local planning authorities are required to take the standing advice into account. In paragraph 82 of the aforementioned Circular, it is stated that: 'The standing advice will be a material consideration in the determination of the planning application in the same way as any advice received from a statutory consultee...it is up to the planning authority to decide the weight to be attached to the standing advice, in the same way as it would decide the weight to be attached to a response from a statutory consultee.'

The Environment Act 2021

The Environment Act includes the requirement for mandatory biodiversity gain for all qualifying developments in England through an amendment to the Town and Country Planning Act 1990 which came into force on 12 February 2024. For all qualifying developments in England, The Environment Act 2021 (Commencement No. 8 and Transitional Provisions) Regulations 2024 (SI44) at Regulation 3 advises in relation to planning applications that '*the biodiversity gain planning condition does not apply in relation to a planning permission within the scope of regulation 2 (2) of these Regulations, where the application for planning permission was made before 12th February 2024*'. From 12 February 2024, the Act and associated secondary Regulations (SI2024 No's 44- 50) insert amendments into the Town and Country Planning Act 1990 which in summary require the following for all qualifying developments in England:

- The provision of a required percentage of biodiversity gain, currently set nationally to be at 10%, as a general condition of planning permission,
- The use of the statutory Biodiversity Metric to calculate the biodiversity gain,
- Submission to and approval by the planning authority, of a Biodiversity Gain Plan (BGP) for the development before the development may be begun; the BGP is to be prepared using a template prepared by Defra to demonstrate how biodiversity gain will be delivered on and / or off-site and how the biodiversity gain hierarchy has been applied so that the local planning authority can take account of the approach taken when deciding whether to approve the BGP,
- Significant on-site biodiversity gain and all offsite biodiversity gain to be secured for a fixed period, currently nationally set at 30 years,
- Alternative arrangements to be made for the purpose of minimising the adverse effect of development to habitats deemed to be irreplaceable habitat (see NPPF),
- Demonstration of how the biodiversity gain will be secured, typically through planning obligations in a section 106 agreement,
- Registration of offsite biodiversity gain and allocation of relevant biodiversity units to a given development in a national register for which Natural England is the Register Operator,
- Use of statutory biodiversity credits through the Secretary of State, which is considered to be a last resort, if onsite and/or offsite biodiversity gains cannot achieve the required percentage.

Natural Environment and Rural Communities (NERC) Act 2006 – Habitats and species of principal importance (England)

The Natural Environment and Rural Communities (NERC) Act came into force on 01 October 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal

¹² <https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications#standing-advice-for-protected-species>

importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England as required by the Act. In accordance with the Act the Secretary of State keeps this list under review and will publish a revised list if necessary, in consultation with Natural England.

The S41 list is used to guide decision-makers such as public authorities, including local authorities, local planning authorities and statutory undertakers, the latter such as utilities companies, in implementing their duty under Section 40 of the NERC Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions, including development management and planning. This was previously commonly referred to as the 'Biodiversity Duty.'

On 01 October 2024 the Biodiversity Duty¹³ was updated and strengthened to become a 'duty to conserve and enhance biodiversity' which requires public authorities to consider what action the authority can take to further the Government's 'general biodiversity objective'. The public authority then must determine appropriate policy actions and specific objectives that can be taken and must take the appropriate action. Actions to satisfy the general biodiversity objective may be through the revision of existing policies and 'specific objectives.' The public authority must have regard to the relevant Local Nature Recovery Strategy and relevant national species and/or protected sites strategies prepared by Natural England when complying with the general biodiversity objective. Consideration by a given public authority was first to take place within one year of the Environment Act 2021 coming into force and then be subject to a review after no more than 5 years although other reviews can be undertaken at any time.

Guidance for public authorities in England on implementing the Biodiversity Duty has been published by Defra¹⁴ on GOV.UK. The guidance requires a public authority to consider what they can do to conserve and enhance biodiversity and how they deliver their policies and actions to achieve their objectives. The roles of Local Nature Recovery Strategies, species and protected sites strategies are set out and public authorities are advised that the action they take at a local level will contribute to national biodiversity goals and targets. Public authorities are required to consider their enhanced biodiversity duty in development plans and decisions including planning policy, environmental impact assessment and how they manage their own land to improve biodiversity value including details in relation to 'green and blue spaces.' Guidance is also provided on how local authorities and local planning authorities must write and publish a biodiversity report as part of fulfilling their duty; these individual authority reports will be used by Defra as part of their Environmental Improvement Plan 5-yearly reviews.

In 2007, the UK Biodiversity Action Plan (BAP) Partnership published an updated list of priority UK species and habitats covering terrestrial, freshwater and marine biodiversity to focus conservation action for rarer species and habitats in the UK. The UK Post-2010 Biodiversity Framework¹⁵, which covers the period from 2011 to 2020, now succeeds the UK BAP. The UK priority list contained 1150 species and 65 habitats requiring special protection and has been used as a reference to draw up the lists of species and habitats of principal importance in England.

In England, there are 56 Habitats of Principal Importance and 943 Species of Principal Importance on the S41 list. These are all the habitats and species found in England that were identified as requiring action in the UK BAP and which continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework.

European protected species (Animals)

The Conservation of Habitats and Species Regulations 2017 (as amended) consolidates various amendments that have been made to the original (1994) Regulations which transposed the EC Habitats Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Council Directive 92/43/EEC) into national law.

"European protected species" (EPS) of animal are those which are shown on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). They are subject to the provisions of Regulation 43 of those Regulations. All EPS are also protected under the Wildlife and Countryside Act 1981 (as amended). Taken together, these pieces of legislation make it an offence to:

- a. Intentionally or deliberately capture, injure or kill any wild animal included amongst these species

¹³ [Natural Environment and Rural Communities Act 2006](#)

¹⁴ [Complying with the biodiversity duty - GOV.UK](#)

¹⁵ JNCC and Defra (on behalf of the Four Countries' Biodiversity Group). 2012. *UK Post-2010 Biodiversity Framework*. July 2012. (<http://jncc.defra.gov.uk/page-6189>)

- b. Possess or control any live or dead specimens or any part of, or anything derived from a these species
- c. deliberately or recklessly disturb wild animals of any such species
- d. deliberately take or destroy the eggs of such an animal, or
- e. intentionally, deliberately or recklessly damage or destroy a breeding site or resting place of such an animal, or obstruct access to such a place

For the purposes of paragraph (c), disturbance of animals includes in particular any disturbance which is likely—

- a. to impair their ability—
 - i. to survive, to breed or reproduce, or to rear or nurture their young, or
 - ii. in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- b. to affect significantly the local distribution or abundance of the species to which they belong.

Although the law provides strict protection to these species, it also allows this protection to be set aside (derogated) through the issuing of licences. The licences in England are currently determined by Natural England (NE) for development works and by Natural Resources Wales in Wales. In accordance with the requirements of the Regulations (2017, as amended), a licence can only be issued where the following requirements are satisfied:

- a. The proposal is necessary ‘to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment’
- b. ‘There is no satisfactory alternative’
- c. The proposals ‘will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.’

Definition of breeding sites and resting places

Guidance for all European Protected Species of animal, including bats and great crested newt, regarding the definition of breeding and of breeding and resting places is provided by The European Council (EC) which has prepared specific guidance in respect of the interpretation of various Articles of the EC Habitats Directive.¹⁶ Section II.3.4.b) provides definitions and examples of both breeding and resting places at paragraphs 57 and 59 respectively. This guidance states that ‘The provision in Article 12(1)(d) [of the EC Habitats Directive] should therefore be understood as aiming to safeguard the ecological functionality of breeding sites and resting places.’ Further the guidance states: ‘It thus follows from Article 12(1)(d) that such breeding sites and resting places also need to be protected when they are not being used, but where there is a reasonably high probability that the species concerned will return to these sites and places. If for example a certain cave is used every year by a number of bats for hibernation (because the species has the habit of returning to the same winter roost every year), the functionality of this cave as a hibernating site should be protected in summer as well so that the bats can re-use it in winter. On the other hand, if a certain cave is used only occasionally for breeding or resting purposes, it is very likely that the site does not qualify as a breeding site or resting place.’

Competent authorities

Under Regulation 7 of the Conservation of Habitats and Species Regulations 2017 (as amended) a “competent authority” includes “any Minister of the Crown..., government department, statutory undertaker, public body of any description or person holding a public office.

In accordance with Regulation 9, “a competent authority must exercise their functions which are relevant to nature conservation, including marine conservation, so as to secure compliance with the requirements of the [Habitats and Birds] Directives. This means for instance that when considering development proposals a competent authority should consider whether EPS or European Protected Sites are to be affected by those

¹⁶ Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC. (February 2007), EC.

works and, if so, must show that they have given consideration as to whether derogation requirements can be met.

Birds

All nesting birds are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition to this, for some rarer species (listed on Schedule 1 of the Act), it is an offence to disturb them whilst they are nest building or at or near a nest with eggs or young, or to disturb the dependent young of such a bird.

The Conservation of Habitats and Species Regulations 2017 (as amended) places duties on competent authorities (including Local Authorities and National Park Authorities) in relation to wild bird habitat. These provisions relate back to Articles 1, 2 and 3 of the EC Directive on the conservation of wild birds (2009/147/EC, 'Birds Directive'¹⁷) (Regulation 10 (3)) requires that the objective is the 'preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat, as appropriate, having regard to the requirements of Article 2 of the new Wild Birds Directive...' Regulation 10 (7) states: 'In considering which measures may be appropriate for the purpose of security or contributing to the objective in [Regulation 10 (3)] Paragraph 3, appropriate account must be taken of economic and recreational requirements'.

In relation to the duties placed on competent authorities under the 2017 Regulations, Regulation 10 (8) states: 'So far as lies within their powers, a competent authority in exercising any function [including in relation to town and country planning] in or in relation to the United Kingdom must use all reasonable endeavours to avoid any pollution or deterioration of habitats of wild birds (except habitats beyond the outer limits of the area to which the new Wild Birds Directive applies).'

Badgers

Badger is protected under the Protection of Badgers Act 1992. It is not permitted to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so; or to intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it. A badger sett is defined in the legislation as "a structure or place, which displays signs indicating current use by a badger".

ODPM Circular 06/2005¹⁸ provides further guidance on statutory obligations towards badger within the planning system. Of particular note is paragraph 124, which states that "The likelihood of disturbing a badger sett, or adversely affecting badgers' foraging territory, or links between them, or significantly increasing the likelihood of road or rail casualties amongst badger populations, are capable of being material considerations in planning decisions."

Natural England provides Standing Advice¹⁹, which is capable of being a material consideration in planning decisions. Natural England recommends mitigation to avoid impacts on badger setts, which includes maintaining or creating new foraging areas and maintaining or creating access (commuting routes) between setts and foraging/watering areas.

Reptiles

All native reptile species receive legal protection in Great Britain under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Viviparous lizard, slow-worm, grass snake and adder are protected against killing, injuring and unlicensed trade only. Sand lizard and smooth snake receive additional protection as "European Protected species" under the provisions of the Conservation of Habitats and Species Regulations 2017 (as amended) and are fully protected under the Wildlife and Countryside Act 1981 (as amended).

All six native species of reptile are included as 'species of principal importance' for the purpose of conserving biodiversity under Section 41 (England) of the NERC Act 2006 (as amended) and Section 7 of the Environment (Wales) Act 2016.

¹⁷ 2009/147/EC Birds Directive (30 November 2009. European Parliament and the Council of the European Union.

¹⁸ ODPM Circular 06/2005. *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impacts within the Planning System* (2005). HMSO Norwich.

¹⁹ <http://www.naturalengland.org.uk/ourwork/planningdevelopment/spatialplanning/standingadvice/specieslinks.aspx>

Current Natural England Guidelines for Developers²⁰ states that 'where it is predictable that reptiles are likely to be killed or injured by activities such as site clearance, this could legally constitute intentional killing or injuring.' Further the guidance states: 'Normally prohibited activities may not be illegal if 'the act was the incidental result of a lawful operation and could not reasonably have been avoided'. Natural England 'would expect reasonable avoidance to include measures such as altering development layouts to avoid key areas, as well as capture and exclusion of reptiles.'

The Natural England Guidelines for Developers state that 'planning must incorporate two aims where reptiles are present:

- To protect reptiles from any harm that might arise during development work;
- To ensure that sufficient quality, quantity and connectivity of habitat is provided to accommodate the reptile population, either on-site or at an alternative site, with no net loss of local reptile conservation status.'

Wild mammals in general

The Wild Mammals (Protection) Act 1996 (as amended) makes provision for the protection of wild mammals from certain cruel acts, making it an offence for any person to intentionally cause suffering to any wild mammal. In the context of development sites, for example, this may apply to rabbits in their burrows.

Invasive non-native species

An invasive non-native species is any non-native animal or plant that has the ability to spread causing damage to the environment.

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to release, or to allow to escape into the wild, any animal which is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state or is listed under Schedule 9 of the Act.

It is an offence to plant or otherwise cause to grow in the wild invasive non-native plants listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

Hedgerows

Article 10 of the Habitats Directive²¹ requires that 'Member States shall endeavour...to encourage the management of features of the landscape which are of major importance for wild fauna and flora. Such features are those which, by virtue of their linear and continuous structure...or their function as stepping stones...are essential for the migration, dispersal and genetic exchange of wild species'. Examples given in the Directive include traditional field boundary systems (such as hedgerows).

The aim of the Hedgerow Regulations 1997²², according to guidance produced by the Department of the Environment²³, is "to protect important hedgerows in the countryside by controlling their removal through a system of notification. In summary, the guidance states that the system is concerned with the removal of hedgerows, either in whole or in part, and covers any act which results in the destruction of a hedgerow. The procedure in the Regulations is triggered only when land managers or utility operators want to remove a hedgerow. The system is in favour of protecting and retaining 'important' hedgerows.

The Hedgerow Regulations set out criteria that must be used by the local planning authority in determining which hedgerows are 'important'. The criteria relate to the value of hedgerows from an archaeological, historical, wildlife and landscape perspective.

²⁰ English Nature, 2004. *Reptiles: guidelines for developers*. English Nature, Peterborough. <https://webarchive.nationalarchives.gov.uk/20150303064706/http://publications.naturalengland.org.uk/publication/76006>

²¹ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

²² Statutory Instrument 1997 No. 1160 – The Hedgerow Regulations 1997. HMSO: London

²³ The Hedgerow Regulations 1997: a guide to the law and good practice, HMSO: London

Appendix 2: Target Notes

Number	Target Note
1	Woodland W1. Claypit Plantation. Block of semi-mature woodland dominated by native tree species (with some non-native conifers towards the centre) in an old pit. Canopy has elm, sycamore, goat willow and cypress. Understorey and ground layers have native species. Abundant evidence of badgers. Game bird feeding stations. Deadwood and bryophytes abundant. Abundant nettles. Considered to be <i>Lowland Mixed Deciduous Woodland</i> in Moderate condition on a precautionary basis.
2	Woodland W2. Narrow strip of woodland dominated by larch, hawthorn and young elm. Understorey heavily dominated by snowberry. Game bird feeding stations and very high density of pheasant and red-legged partridge noted. Limited ground flora, with abundant black horehound. Considered to be <i>Other woodland - mixed</i> in Poor condition.
3	Woodland W3. New Plantation. Block of woodland with semi-mature elm, semi-mature yew and some mature English oak. Ground generally flat. Mature oaks on eastern boundary. Some sycamore also present. Some coppiced hazel in understorey, non-native shrubs in some areas. Ground layer variable with abundant common nettle or ivy in places. Old pheasant rearing pen present. Considered to be <i>Lowland Mixed Deciduous Woodland</i> in Moderate condition.
4	Woodland W4. Woodland strip dominated by mature and semi-mature beech, ash, elm and sycamore. Sparse understorey. Ground layer with common nettle and false brome. Considered to be <i>Lowland Mixed Deciduous Woodland</i> in Moderate condition.
5	Woodland W5. Woodland block at eastern end of W4. Sloping down to southwest. Dominated by young semi-mature ash with some young oak and wild cherry. Dense bramble in some areas. Abundant false brome in more open areas. Considered to be <i>Lowland Mixed Deciduous Woodland</i> in Moderate Condition
6	Woodland W6. Strip of mixed woodland with dense shrubs. On flat ground. Possibly originating from an overgrown hedge or line of fruit trees. Abundant hawthorn and plum. Some elm, cherry laurel and apple. Ground layer with abundant black horehound, garlic mustard and ivy. Considered to be <i>Lowland Mixed Deciduous Woodland</i> in Moderate condition.
7	Woodland W7. Strip of young semi-mature plantation along eastern side of the Site adjacent to roads and junction. Abundant field maple, beech, ash and cherry. Many still in planting tubes. Shrub layer with wild privet and hazel. No ground flora noted. Dense leaf litter. Considered to be <i>Other woodland - broadleaved</i> in Poor condition.
8	Woodland W8. Apparently an old chalkpit. Steep chalk cliffs on some of its boundaries. Dominated by semi-mature elm and beech. Understorey of elder. Ground layer with abundant common nettle and black horehound. Abundant badger activity (and disturbed ground), extending south outside woodland along public footpath. Brown hare noted on eastern edge. Considered to be <i>Lowland Mixed Deciduous Woodland</i> in Moderate condition.
9	Woodland W9. Block of woodland dominated by semi-mature elms. Level ground. Sparse understorey of suckering elm. Ground layer with abundant false brome, ground ivy, and meadow grass. Badger activity. Brown hare noted. Considered to be <i>Lowland Mixed Deciduous Woodland</i> in Moderate Condition.
10	Woodland W10. Small block of woodland heavily dominated by semi-mature elms. Moderate slope down to south. Occasional semi-mature English oak. Sparse understorey of elder and suckering elm. Grassy ground layer with abundant Yorkshire fog and common nettle. Considered to be <i>Lowland Mixed Deciduous Woodland</i> in Moderate Condition.
11	Woodland W11. Claypit Plantation. Block of woodland extending to both side of farm track. Canopy with elm, sycamore, field maple and ash. Understorey of various native and non-native species. Ground flora of various species including dog's mercury and abundant common nettle. Considered to be <i>Lowland Mixed Deciduous Woodland</i> in Moderate Condition.
12	Woodland W12. Sandpit Plantation. Block of woodland on moderately steep south-west facing slope and flatter sandpit area above. Canopy with semi-mature trees of various native

	and non-native species (including sycamore, elm, larch and ash) and several mature English oaks. Understorey with saplings and bramble. Ground flora with abundant common nettle and some grassy areas. Considered to be <i>Lowland Mixed Deciduous Woodland</i> in Moderate Condition.
13	Woodland 13. Small area of young even-aged plantation woodland. Canopy of English oak, field maple and cypress. Understorey with elder and ivy. Ground layer with black horehound, ground ivy and lords-and-ladies. Considered to be <i>Other woodland broadleaved</i> in Moderate Condition.
14	Roman Road SSSI. Bridleway on embankment running east to west along northern boundary of the Site. Considered to be outside the Site for this assessment. Grassland with a range of grasses (abundant fescue and false oat-grass) and forbs, e.g., hedgerow bedstraw, common knapweed, yarrow, ribwort plantain, and wild parsnip. Bounded to north and south by mixed species-rich hedgerows. Evidence of rabbit and fox. Narrow (ca. 5 m wide) grassy field margin adjacent to south (i.e. inside the Site) with abundant fescue grass, considered to be <i>Other Neutral Grassland</i> in Poor condition on a precautionary basis.
15	Waste recycling centre. Just inside western boundary. Surrounded by young plantation screening woodland as per note 7.
16	Patch of Other Neutral Grassland. Area of sparse grassland with abundant fescue grass and forbs such as wild carrot, oxeye daisy, hedge bedstraw, and ribwort plantain. influence May have been recently seeded. Aerial imagery indicates arable use in 2003 and prior. Calcareous element to flora present but this habitat not considered <i>Lowland Calcareous Grassland</i> due to its recent origin. Considered to be <i>Other Neutral Grassland</i> in Moderate condition.
17	Horse riding area with woodchip surface. Strips of rough grassland and ruderal adjacent. Assumed to be <i>Other Neutral Grassland</i> in Moderate condition on a precautionary basis.
18	Stone farmhouse and farmyard with outbuildings and garden. Buildings likely to have some potential to support roosting bats. Potential for outbuildings to support roosting or nesting barn owl. Row of stone cottages to south with gardens. Buildings likely to have some potential to support roosting bats.
19	Grazing paddocks to east of farmhouse. Sward has a range of grasses and forbs. Considered to be <i>Other Neutral Grassland</i> in Moderate condition on a precautionary basis.
20	Large grazing paddock south of cottages. Limited range of grasses and forbs. Considered to be <i>Modified Grassland</i> in Moderate condition.
21	Double native species rich hedgerow with trees flanking main track to farm.
22	Small rectangular concrete drainage sump on highways land outside south-western Site boundary. Containing water in base. Steep sided.
23	Badger activity by public footpath.
24	Sunken lane / holloway with abundant badger activity and remnants of species-rich native double hedgerow in parts. Grass and ruderal vegetation.
25	Deep pit / tip area. Exposed gravel soils (perhaps a former gravel pit). Now dominated by ruderal vegetation and scrub. Abundant hawthorn, blackthorn, elder and common nettle. Appears heavily used by motocross bikes. Categorized overall as <i>Mixed Scrub</i> in Moderate condition.
26	Disturbed gravel with ephemeral vegetation and grassland. On north-eastern corner of Sandpit Plantation. Landowner mentioned this as a source of gravel for the various farm tracks. Categorized overall as <i>Other Neutral Grassland</i> in Moderate condition.
27	Sheep grazed paddock. Various grasses and forbs present including fescue, creeping bent, cock's-foot, yarrow and ribwort plantain. Categorized overall as <i>Other Neutral Grassland</i> in Moderate condition on a precautionary basis.

28	Area of scrub and ruderal vegetation on tipped spoil within sheep paddock. Considered to be Mixed Scrub in Moderate condition.
29	Renovated barn. Now a dwelling. Excluded from the Site. Garden to south is within the site. Contains semi-mature native trees.
30	Area of unmanaged grassland. Just inside southern Site boundary. With abundant false oat-grass and cock's-foot and some forbs. Various old farm machinery and materials present. Categorized overall as <i>Other Neutral Grassland</i> in Moderate condition on a precautionary basis.

Appendix 3: Plant Species Lists

Woodland W1 (see Target Note 1)

Scientific Name	Common name	DAFOR abundance estimate
Canopy		
<i>Acer pseudoplatanus</i>	Sycamore	F
<i>Ulmus</i> sp.	Elm	F
<i>Chamaecyparis</i> sp.	A cypress	O
<i>Salix caprea</i>	Goat willow	O
Understorey		
<i>Ligustrum vulgare</i>	Wild privet	F
<i>Sambucus nigra</i>	Elder	F
<i>Crataegus monogyna</i>	Hawthorn	R
Ground & field layer		
<i>Brachypodium sylvaticum</i>	False brome	A
<i>Brachythecium rutabulum</i>	Rough-stalked feathermoss	F
<i>Kindbergia praelonga</i>	Common feathermoss	F
<i>Hedera helix</i>	Ivy	O
<i>Thamnobryum alopecurum</i>	Foxtail feathermoss	R
<i>Urtica dioica</i>	Common nettle	R

Woodland W2 (see Target Note 2)

Scientific Name	Common name	DAFOR abundance estimate
Canopy		
<i>Ulmus</i> sp.	Elm	F
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Larix decidua</i>	Larch	O
Understorey		
<i>Symphoricarpos albus</i>	Snowberry	D
<i>Ligustrum vulgare</i>	Wild privet	O
<i>Mahonia aquifolium</i>	Oregon grape	O
<i>Crataegus monogyna</i>	Hawthorn	R
<i>Rosa canina</i>	Dog rose	R
Ground & field layers		

<i>Glechoma hederacea</i>	Ground ivy	A
<i>Ballota nigra</i>	Black horehound	A
<i>Hedera helix</i>	Ivy	O

Woodland W3 (see Target Note 3)

Scientific Name	Common name	DAFOR abundance estimate
Canopy		
<i>Ulmus</i> sp.	Elm	F
<i>Quercus robur</i>	English oak	O
<i>Taxus baccata</i>	Yew	O
Understorey		
<i>Hedera helix</i>	Ivy	F
<i>Corylus avellana</i>	Hazel	O
<i>Mahonia aquifolium</i>	Oregon grape	O
<i>Sambucus nigra</i>	Elder	O
Ground & field layer		
<i>Geranium robertianum</i>	Herb Robert	F
<i>Hedera helix</i>	Ivy	F
<i>Anthriscus sylvestris</i>	Cow parsley	O
<i>Glechoma hederacea</i>	Ground ivy	O
<i>Urtica dioica</i>	Common nettle	O

Woodland W4 (see Target Note 4)

Scientific Name	Common name	DAFOR abundance estimate
Canopy		
<i>Fagus sylvatica</i>	Beech	A
<i>Fraxinus excelsior</i>	Ash	F
<i>Ulmus</i> sp.	Elm	F
<i>Acer pseudoplatanus</i>	Sycamore	O
Understorey		
<i>Hedera helix</i>	Ivy	F
<i>Ligustrum vulgare</i>	Wild privet	F
<i>Corylus avellana</i>	Hazel	O
<i>Crataegus monogyna</i>	Hawthorn	O

Ground & field layer		
<i>Brachypodium sylvaticum</i>	False brome	F
<i>Glechoma hederacea</i>	Ground ivy	O
<i>Urtica dioica</i>	Common nettle	O
<i>Rubus fruticosus</i> agg.	Bramble	R

Woodland W5 (see Target Note 5)

Scientific Name	Common name	DAFOR abundance estimate
Canopy		
<i>Fraxinus excelsior</i>	Ash	A
<i>Fagus sylvatica</i>	Beech	O
<i>Prunus avium</i>	Wild cherry	O
<i>Quercus robur</i>	English oak	O
Understorey		
<i>Hedera helix</i>	Ivy	F
<i>Crataegus monogyna</i>	Hawthorn	O
Ground & field layer		
<i>Brachypodium sylvaticum</i>	False brome	A
<i>Rubus fruticosus</i> agg.	Bramble	F

Woodland W6 (see Target Note 6)

Scientific Name	Common name	DAFOR abundance estimate
Canopy		
<i>Ulmus</i> sp.	Elm	O
<i>Crataegus monogyna</i>	Hawthorn	A
<i>Prunus domestica</i>	European plum	A
<i>Malus domestica</i>	Apple	R
<i>Prunus laurocerasus</i>	Cherry laurel	R
Understorey		
<i>Hedera helix</i>	Ivy	O
<i>Ligustrum vulgare</i>	Wild privet	O
Ground & field layer		
<i>Alliaria petiolata</i>	Garlic mustard	F
<i>Hedera helix</i>	Ivy	F

<i>Rubus fruticosus</i> agg.	Bramble	F
<i>Urtica dioica</i>	Common nettle	F
<i>Anthriscus sylvestris</i>	Cow parsley	O
<i>Ballota nigra</i>	Black horehound	O
<i>Glechoma hederacea</i>	Ground ivy	O

Woodland W7 (see Target Note 7)

Scientific Name	Common name	DAFOR abundance estimate
Canopy		
<i>Acer campestre</i>	Field maple	F
<i>Fagus sylvatica</i>	Beech	F
<i>Fraxinus excelsior</i>	Ash	F
<i>Prunus avium</i>	Wild cherry	O
Understorey		
<i>Corylus avellana</i>	Hazel	O
<i>Ligustrum vulgare</i>	Wild privet	O
<i>Rosa canina</i>	Dog rose	O
Ground & field layer		
Deep litter layer, little vegetation	-	D

Woodland W8 (see Target Note 8)

Scientific Name	Common name	DAFOR abundance estimate
Canopy		
<i>Ulmus</i> sp.	An elm	A
<i>Fagus sylvatica</i>	Beech	F
Understorey		
<i>Sambucus nigra</i>	Elder	A
<i>Hedera helix</i>	Ivy	A
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Rosa canina</i>	Dog rose	R
<i>Rubus fruticosus</i> agg.	Bramble	O
Ground & field layer		
<i>Ballota nigra</i>	Black horehound	F
<i>Brachypodium sylvestris</i>	False brome	F
<i>Galium aparine</i>	Cleavers	F

<i>Urtica dioica</i>	Common nettle	F
<i>Alliaria petiolata</i>	Garlic mustard	O
<i>Dactylis glomerata</i>	Cock's-foot	O
<i>Galanthus nivalis</i>	Snowdrop	O
<i>Kindbergia praelonga</i>	Common feather-moss	O

Woodland W9 (see Target Note 9)

Scientific Name	Common name	DAFOR abundance estimate
Canopy		
<i>Ulmus</i> sp.	An elm	D
<i>Quercus robur</i>	English oak	R
Understorey		
<i>Ligustrum vulgare</i>	Wild privet	R
<i>Ulmus</i> sp.	An elm	R
Ground & field layer		
<i>Brachypodium sylvaticum</i>	False brome	A
<i>Glechoma hederacea</i>	Ground ivy	A
<i>Poa trivialis</i>	Rough-stalked meadow-grass	A
<i>Ballota nigra</i>	Black horehound	O
<i>Brachythecium rutabulum</i>	Rough-stalked feather-moss	O
<i>Hedera helix</i>	Ivy	O
<i>Kindbergia praelonga</i>	Common feather-moss	O
<i>Anthriscus sylvestris</i>	Cow parsley	R
<i>Arum maculatum</i>	Lords-and-ladies	R
<i>Viola</i> sp.	A violet	R

Woodland W10 (see target Note 10)

Scientific Name	Common name	DAFOR abundance estimate
Canopy		
<i>Ulmus</i> sp.	Elm	D
<i>Quercus robur</i>	English oak	R
Understorey		
<i>Sambucus nigra</i>	Elder	R
<i>Ulmus</i> sp.	Elm	R
Ground flora / Field layer		
<i>Holcus lanatus</i>	Yorkshire fog	A

<i>Urtica dioica</i>	Stinging nettle	A
<i>Brachypodium sylvaticum</i>	False brome	F
<i>Galium aparine</i>	Cleavers	F
<i>Anthriscus sylvestris</i>	Cow parsley	O
<i>Ballota nigra</i>	Black horehound	O
<i>Viola</i> sp.	Violet	R

Woodland W11 (see Target Note 11)

Scientific Name	Common name	DAFOR abundance estimate
Canopy		
<i>Acer pseudoplatanus</i>	Sycamore	A
<i>Ulmus</i> sp.	Elm	A
<i>Acer campestre</i>	Field maple	O
<i>Fraxinus excelsior</i>	Ash	O
Understorey		
<i>Hedera helix</i>	Ivy	F
<i>Mahonia aquifolium</i>	Oregon grape	O
<i>Ruscus aculeatus</i>	Butcher's broom	O
<i>Symphoricarpos albus</i>	Snowberry	O
<i>Ulmus</i> sp.	Elm	O
Ground & field layer		
<i>Galium aparine</i>	Cleavers	F
<i>Hedera helix</i>	Ivy	F
<i>Kindberia praelongum</i>	Common feather-moss	F
<i>Urtica dioica</i>	Common nettle	F
<i>Alliaria petiolata</i>	Garlic mustard	O
<i>Anthriscus sylvestris</i>	Cow parsley	O
<i>Ballota nigra</i>	Black horehound	O
<i>Brachypodium sylvaticum</i>	False brome	O
<i>Glechoma hederacea</i>	Ground ivy	O
<i>Holcus lanatus</i>	Yorkshire fog	O
<i>Mercurialis perennis</i>	Dog's-mercury	O

Woodland W12 (see Target Note 12)

Scientific Name	Common name	DAFOR abundance estimate
Canopy		

<i>Acer pseudoplatanus</i>	Sycamore	F
<i>Fraxinus excelsior</i>	Ash	F
<i>Quercus robur</i>	English oak	F
<i>Ulmus</i> sp.	An elm	F
<i>Larix decidua</i>	Larch	R
<i>Picea abies</i>	Norway spruce	R
Understorey		
<i>Rubus fruticosus</i> agg.	Bramble	F
<i>Fraxinus excelsior</i>	Ash	O
<i>Ulmus</i> sp.	An elm	O
Ground & field layer		
<i>Holcus lanatus</i>	Yorkshire fog	F
<i>Galium aparine</i>	Cleavers	O
<i>Poa</i> sp.	A meadow-grass	O
<i>Urtica dioica</i>	Common nettle	O

Woodland W13 (see Target Note 13)

Scientific Name	Common name	DAFOR abundance estimate
Canopy		
<i>Acer campestre</i>	Field maple	A
<i>Quercus robur</i>	English oak	A
<i>Chamaecyparis</i> sp.	A cypress	R
Understorey		
<i>Hedera helix</i>	Ivy	O
<i>Sambucus nigra</i>	Elder	O
Ground & field layer		
<i>Glechoma hederacea</i>	Ground ivy	F
<i>Urtica dioica</i>	Common nettle	F
<i>Arum maculatum</i>	Lords-and-ladies	O
<i>Ballota nigra</i>	Black horehound	O

Grassland at Roman Road SSSI (see Target Note 14)

Scientific Name	Common name	DAFOR abundance estimate
<i>Festuca</i> sp.	A fescue	A
<i>Achillea millefolium</i>	Yarrow	F
<i>Plantago lanceolata</i>	Ribwort plantain	F

<i>Ballota nigra</i>	Black horehound	O
<i>Centaurea nigra</i>	Common knapweed	O
<i>Conium maculatum</i>	Hemlock	O
<i>Galium album</i>	Hedge bedstraw	O
<i>Glechoma hederacea</i>	Ground ivy	O
<i>Veronica chamaedrys</i>	Germander speedwell	O
<i>Leucanthemum vulgare</i>	Ox-eye daisy	R
<i>Lolium pratensis</i>	Meadow fescue	R
<i>Pastinaca sativa</i>	Wild parsnip	R

Other neutral grassland at west of Site (see Target Note 16)

Scientific Name	Common name	DAFOR abundance estimate
<i>Festuca</i> sp.	A fescue	A
<i>Brachythecium albicans</i>	Whitish feather-moss	F
<i>Daucus carota</i>	Wild carrot	F
<i>Leontodon hispidus</i>	Rough hawkbit	F
<i>Galium album</i>	Hedge bedstraw	O
<i>Plantago lanceolata</i>	Ribwort plantain	O
<i>Leucanthemum vulgare</i>	Ox-eye daisy	R

Other neutral grassland east of farmhouse (see Target Note 19)

Scientific Name	Common name	DAFOR abundance estimate
<i>Festuca</i> sp.	A fescue	A
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Geranium rotundifolium</i>	Round-leaved crane's-bill	F
<i>Lolium perenne</i>	Perennial rye-grass	F
<i>Poa</i> sp.	A meadow-grass	F
<i>Arenaria serpyllifolia</i>	Thyme-leaved sandwort	O
<i>Bellis perennis</i>	Common daisy	O
<i>Cerastium fontanum</i>	Common mouse-ear	O
<i>Prunella vulgaris</i>	Self-heal	O
<i>Sherardia arvensis</i>	Field madder	O
<i>Trifolium pratense</i>	Red clover	O

Modified Grassland east of cottages (see Target Note 20)

Scientific Name	Common name	DAFOR abundance estimate
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Lolium perenne</i>	Perennial ryegrass	F
<i>Agrostis stolonifera</i>	Creeping bent	O
<i>Rumex acetosa</i>	Common sorrel	R
<i>Trifolium repens</i>	White clover	R

Pit/tip area with scrub and ruderal plants (see Target Note 25)

Scientific Name	Common name	DAFOR abundance estimate
<i>Arrhenatherum elatius</i>	False oat-grass	A
<i>Dactylis glomerata</i>	Cock's-foot	A
<i>Sambucus nigra</i>	Elder	A
<i>Urtica dioica</i>	Common nettle	A
<i>Arctium minus</i>	Lesser burdock	F
<i>Brachythecium</i> sp.	A feather-moss	F
<i>Conium maculatum</i>	Hemlock	F
<i>Crataegus monogyna</i>	Hawthorn	F
<i>Prunus spinosa</i>	Blackthorn	F
<i>Anthriscus sylvestris</i>	Cow parsley	O
<i>Myotis arvensis</i>	Field forget-me-not	O
<i>Symphytum</i> sp.	Comfrey	O

Other neutral grassland on north-east corner of Sandpit Plantation (see Target Note 26)

Scientific Name	Common name	DAFOR abundance estimate
<i>Agrostis stolonifera</i>	Creeping bent	F
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Achillea millefolium</i>	Yarrow	O
<i>Brachythecium albicans</i>	Whitish feather-moss	O
<i>Festuca</i> sp.	A fescue	O
<i>Plantago lanceolata</i>	Ribwort plantain	O
<i>Syntrichia</i> sp.	A screw-moss	O
<i>Artemisia vulgaris</i>	Mugwort	R
<i>Erodium cicutarium</i>	Common stork's-bill	R
<i>Geranium molle</i>	Dove's-foot crane's-bill	R

<i>Hemlock</i>	<i>Conium maculatum</i>	R
<i>Verbascum thapsus</i>	Great mullein	R

Sheet-grazed paddock; Other neutral grassland (see Target Note 27)

Scientific Name	Common name	DAFOR abundance estimate
<i>Dactylis glomerata</i>	Cock's-foot	A
<i>Festuca rubra</i>	Red fescue	A
<i>Achille millefolium</i>	Yarrow	F
<i>Agrostis stolonifera</i>	Creeping bent	F
<i>Plantago lanceolata</i>	Ribwort plantain	F
<i>Jacobaea vulgaris</i>	Common ragwort	R

Scrub and ruderal vegetation (see Target Note 28)

Scientific Name	Common name	DAFOR abundance estimate
<i>Crataegus monogyna</i>	Hawthorn	F
<i>Ballota nigra</i>	Black horehound	O
<i>Centaurea nigra</i>	Black knapweed	O
<i>Cirsium arvense</i>	Creeping thistle	O
<i>Malvus sylvestris</i>	Common mallow	O
<i>Rosa canina</i>	Dog rose	O
<i>Lamium album</i>	White dead-nettle	R

Unmanaged grassland at south of Site (see Target Note 30)

Scientific Name	Common name	DAFOR abundance estimate
<i>Arrhenatherum elatius</i>	False oat-grass	A
<i>Dactylis glomerata</i>	Cock's-foot	A
<i>Plantago lanceolata</i>	Ribwort plantain	A
<i>Anthriscus sylvestris</i>	Cow parsley	O
<i>Artemisia vulgaris</i>	Mugwort	O
<i>Glechoma hederacea</i>	Ground ivy	O
<i>Urtica dioica</i>	Common nettle	O
<i>Geranium</i> sp.	A crane's-bill	R
<i>Ligustrum vulgare</i>	Wild privet	R
<i>Solidago canadensis</i>	Canadian goldenrod	R

Species-rich hedgerows across the Site

Scientific Name	Common name	DAFOR abundance estimate
<i>Crataegus monogyna</i>	Hawthorn	D
<i>Prunus spinosa</i>	Blackthorn	A
<i>Hedera helix</i>	Ivy	F
<i>Fraxinus excelsior</i>	Ash	O
<i>Rosa canina</i>	Dog rose	O
<i>Rubus fruticosus</i> agg.	Bramble	O
<i>Sambucus nigra</i>	Elder	O
<i>Ulmus</i> sp.	An elm	O
<i>Acer campestre</i>	Field maple	R
<i>Acer pseudoplatanus</i>	Sycamore	R
<i>Quercus robur</i>	English oak	R

Species-poor hedgerows across the Site

Scientific Name	Common name	DAFOR abundance estimate
<i>Prunus spinosa</i>	Blackthorn	A
<i>Crataegus monogyna</i>	Hawthorn	D
<i>Hedera helix</i>	Ivy	O
<i>Rubus fruticosus</i> agg.	Bramble	O
<i>Rosa canina</i>	Dog rose	R

Appendix 4: NE DAS response

Date: 09 June 2026
Our ref: DAS/A023767
Your ref: Grange Farm DAS



Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

0300 060 3900

BY EMAIL ONLY

Dear Tom

Discretionary Advice Service (Charged Advice) **DAS reference: A023767**

543398: Land at Grange Farm, Little Abington, Cambridge, CB21 6BL.

This advice is being provided as part of Natural England's Discretionary Advice Service.

Natural England have been asked to provide advice "*relating to the appropriate nature and scale of a Mitigation Strategy regarding the proposed new settlement at Grange Farm, Cambridge. To include advice on recreational pressure impacts and potential mitigation, greenspace provision and habitat creation opportunities*".

This advice is provided in accordance with the Quotation and Agreement dated 25/3/26.

The following advice is based upon the information within:

1. Grange Farm Place, Vision and Concept Proposals (dated April 2026)
2. Preliminary Ecological Appraisal (prepared by BSG Ecology, dated 10/4/26)
3. Further details of Land Use Areas, including greenspace calculations (received by email 2/6/26)
4. Points discussed during the DAS meeting (held 19/5/26)

We welcome the opportunity to comment on the proposals at an early stage. I have provided a summary of our comments below, following our review of the documents outlined above. I hope this provides more context and expands on the points discussed during our recent meeting. This is our initial feedback, and we will be pleased to comment further as the proposals develop.

Summary of key points for Natural England:

- 1. Avoiding recreational pressure impacts on the Roman Road SSSI:** Given the scale of the development and its proximity to the Roman Road, there is the potential for a significant increase in recreational pressure on the SSSI. This will need to be addressed through a robust and effective Mitigation Strategy that demonstrates how adverse impacts will be avoided. The design of the Northern Edge must be capable of delivering this mitigation effectively, supported by green infrastructure provision across the wider development.
- 2. Provision of high quality, accessible greenspace:** Greenspace provision should be a key component of the Mitigation Strategy. The proposals should ensure that sufficient high-quality,

nature-rich greenspace is integrated throughout the development. A well-designed GI network can help to divert recreational use away from the SSSI and the Northern Edge, whilst also avoiding displacement of pressure onto other sensitive sites in the surrounding area.

- 3. Supporting nature recovery:** The proposals should maximise opportunities for habitat creation and biodiversity enhancement through Biodiversity Net Gain, ensuring they align with priorities in the Cambridgeshire and Peterborough LNRS, e.g. through the creation of high-quality chalk grassland. Opportunities to support the management and improve the condition of the SSSI should also be explored as part of the proposals.
- 4. Mitigating other impact pathways:** The potential for other impacts beyond recreational pressure will need to be thoroughly assessed and mitigated – e.g. hydrological connectivity between the site and nearby SSSI's. The Applicant will need to undertake the necessary assessments and implement appropriate mitigation to address any risks.

1. Avoiding recreational pressure impacts on the Roman Road SSSI:

The Roman Road SSSI lies immediately north of the development site, just outside of the red line boundary. The SSSI supports nationally important species-rich calcareous grassland communities of a type that 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. The SSSI is currently classified as "unfavourable recovering", with impacts from recreational footfall causing erosion, and nutrient enrichment and livestock disturbance from dogs being listed as key pressures for the site's notified features in [Designated Sites View](#). Being a very thin linear site, the SSSI notified features are at significant risk from intensification of these pressures through nearby large-scale housing development. As discussed at the meeting, we need to be confident that the proposals will not result in an adverse effect on the SSSI and further degradation of its chalk grassland habitats detailed in the [citation](#).

The proposals will need to deliver robust, effective and timely mitigation which should be clearly set out in a Mitigation Strategy. Mitigation is likely to require a combination of measures, including the ecologically sensitive design of the Northern Edge and the provision of high-quality greenspace throughout the development to help alleviate recreational pressure.

We provide the following detailed comments on these aspects:

a) Design of the Northern Edge:

As the buffer between the development and the Roman Road, the Northern Edge will play a critical role in mitigating recreational pressures and protecting the integrity of the SSSI. We note from the Place, Vision and Concept document (pg.115) that a series of zones are proposed for the Northern Edge, including:

- An Ecological Zone of restricted access, immediately adjacent to the SSSI and incorporating a chalk grassland buffer and meandering SUDS features;
- An Ecological / Amenity Zone with limited access, and
- An Amenity Zone with encouraged access, adjacent to the built development.

We also note (pg.114) that an open interface will be retained alongside the Roman Road, with planting and attenuation features used to discourage access.

We consider there is a need to strengthen the proposed approach to further reduce the risks of recreational impacts on the SSSI, particularly within the restricted and limited access zones. This applies both to the measures proposed, and the width of the zones themselves. As noted at the meeting, there is a risk that if not clearly defined and of a sufficient width, the zones could merge, resulting in increased access to the Roman Road.

Pg.112 states that “*recreational pressure in the SSSI will be managed through carefully designed access points, through the provision of highly accessible alternative greenspace and transport links, and through ongoing active management of the SSSI habitats*. It further states that, whilst connections to the Roman Road from the development should be minimal and carefully controlled, access should be incorporated at appropriate locations to minimise the risk of incidental connections being made.

As there are currently no Public Rights of Way that cross or directly connect to the SSSI, the most effective means of avoiding additional pressure from the c.14,000 new residents would be to prevent direct access to the SSSI from the development itself. The creation of one or more direct access points between the development and the SSSI could establish an attractive circular walking route. If access points are to be included, then there would need to be a robust access strategy that considers their design and management. However, note that our recommendation is that direct access to the SSSI from the development should be avoided.

To achieve this, we would suggest:

- Installation of a dog proof fence along the development boundary adjacent to Roman Road.
- Establishment of a dense native hedge on the development side of the fence. Whilst this need not be tall, it should be sufficiently dense to function as an effective natural barrier.
- A graduated habitat transition comprising the hedgerow, long grassland and scattered scrub, grading into the grassland habitats.
- Provision of a wide, accessible green corridor on the development side of the SUDS that includes an attractive linear walking route. This could act as an alternative recreational corridor, following a similar route to the Roman Road, but entirely within the development boundary.
- Avoidance of direct connections between this route and the Roman Road PRow. This, along with fencing and shrubby habitat creation, should reduce the establishment of informal walking routes or desire lines that utilise the SSSI.
- Use of appropriate and durable path surfacing to minimise path widening and habitat damage, especially during the wetter winter months when informal routes may become muddy / impassable.

Ideally, a strip of chalk grassland would be established adjacent to the Roman Road, with a dog-proof fence and dense native hedgerow on the development side to prevent access by people and dogs. The additional measures outlined above could then be incorporated behind this buffer. This approach would align with the Design Response set out in the document (pg.112) whilst providing a more robust buffer to the SSSI. It would also provide additional protection for establishing chalk grassland habitat.

Consideration should be given to impacts beyond the section of SSSI bordering the site. The Roman Road forms part of a wider ecological and recreational corridor, and pressures arising from the growth may extend into connected sections of the route. This underlines the importance of providing high-quality greenspace and ensuring that the Northern Edge functions as a resilient buffer.

b) Meandering SUDS:

We note that the Northern Edge (Ecological Zone) will incorporate meandering SUDS features, including swales and attenuation basins, which are intended to ‘*discourage informal access and form a clear threshold between the ecology areas and public open space*’ (pg.112). We question whether SUDS features alone can provide a sufficiently robust buffer to discourage access to the Roman Road SSSI.

Given the site’s chalk geology, we would welcome further detail on the SUDS strategy when available, including the nature of the features proposed and how they will be managed. This information will be important to assess their effectiveness as a mitigation measure. Features that retain water for longer and/or have steeper slopes will be a more effective barrier than shallow basins, which may dry out seasonally and become passable. Any features intended to contribute to mitigation must be effective throughout the year and be subject to long-term management to maintain their function over the

lifetime of the development. This should be captured in the Mitigation Strategy.

It is our view that SUDS should form one component of a wider package of mitigation measures, rather than being the primary means preventing access to the SSSI. We suggest that the additional measures outlined above (e.g. thicker hedges) should be integrated into the design of the Northern Edge to create a more resilient approach.

c) Ensuring sufficient width along the Northern Edge:

Whilst we haven't been prescriptive with an exact width for the buffer, it should be as wide as possible to accommodate the required mitigation measures. Further details of layout and density of the development (when available) can help to inform this. Pg 114 indicates that the width of the Northern Edge varies in response to topography, ranging from approximately 45m to 110m, with localised variations where it intersects with green corridors and key movement routes. The Northern Edge should be capable of accommodating all its intended functions, including ecological mitigation and access, ensuring they remain distinct and can deliver their primary roles.

We have some concerns regarding the narrower sections of the Northern Edge. In particular, Cross Section D (pg. 115) includes an ecological zone of approximately 15m. We question whether this would provide sufficient separation between the development and the SSSI and accommodate the required mitigation measures effectively.

In principle, a wider Northern Edge would provide greater confidence that effective mitigation can be delivered along the length of the site. Whilst we recognise that a width of 110m (as per Cross Section C) may not be achievable at all points, we would welcome wider provision being prioritised as far as possible. Clear justification should be provided where this is not the case, alongside evidence to demonstrate that narrower sections will ensure / deliver effective mitigation.

Although no cross sections are provided, the Landscape Strategy (pg.108) suggests that some of the green corridors and open spaces along the north-east and southern boundaries may be wider than sections of the Northern Edge. Given that these areas are not adjacent to the SSSI, could the distribution of greenspace be adjusted to provide additional width along the northern boundary, where ecological sensitivity is greatest? If constraints such as topography limit opportunities to widen the Northern Edge, it would be helpful to understand if alternative approaches have been considered, including adjusting housing density, layout or site extent (red line boundary) to allow for more greenspace without reducing the number of dwellings.

The width of the Northern Edge will also influence its effectiveness as a dark corridor. Maintaining ecological connectivity and minimising disturbance (particularly from lighting) will require the dark corridors to be as wide as possible. The design of the Northern Edge should therefore be informed by both recreational pressure mitigation and the wider ecological function of the SSSI and associated habitats and species.

d) Monitoring the mitigation measures:

We are unsure whether a recreational pressure assessment will be undertaken as part of the proposals. We would advise that a recreational pressure assessment is carried out to establish baseline impacts and help monitor any changes over time. An assessment would also provide valuable evidence to inform mitigation measures, e.g. by highlighting any hotspots for disturbance / access. We would be happy to direct you to information and case studies to guide best practice in undertaking this.

Monitoring and management of any mitigation measures should be captured in the Mitigation Strategy. This will be essential to ensure that mitigation remains fit for purpose through the lifetime of the development and continues to protect the SSSI from recreational pressure.

2. Provision of accessible greenspace:

Alongside the design of the Northern Edge, it will be essential to ensure that sufficient, high quality and nature-rich accessible greenspace is embedded within the development. Green Infrastructure will play a key role in supporting the Northern Edge by providing alternative recreational opportunities on-site, thereby reducing pressures on the Roman Road SSSI.

Natural England's [Green Infrastructure mapping](#) identifies a deficiency of accessible greenspace in the area surrounding Grange Farm, reflecting a wider trend across Cambridge. This reinforces the importance of providing sufficient greenspace within the development, ensuring residents have access to high quality natural spaces close to home for daily recreational activities. It can also help to protect vulnerable SSSIs in the surrounding area, a number of which are already experiencing recreational pressure. In addition to mitigating recreational impacts, high quality GI will support wider objectives relating to placemaking, health and wellbeing, air quality, climate resilience and nature recovery.

Quantity and quality of accessible greenspace:

Natural England's [Accessible Greenspace Standard](#) states that greenspace of at least 3Ha/1000 per new population should be delivered on sites as an absolute minimum, particularly where mitigation for recreational pressure is needed. However, greater provision may be required depending on site context. As a rule, the larger the proposal and / or the closer proximity to sensitive sites such as SSSIs, the greater the quantity of greenspace that should be provided. In locations where recreational impacts on protected sites are a concern, provision closer to Suitable Alternative Natural Greenspace (SANG) standards (8Ha/1000) may be more appropriate: [Guidelines for Creation of Suitable Alternative Natural Greenspace \(SANG\) - August 2021](#)

We are currently working with the LPA on the emerging Greater Cambridge Local Plan and would encourage greenspace provision to align with the emerging GI policy. The policy is based on evidence of local greenspace need and recognises the role greenspace plays in reducing pressures on protected sites in Greater Cambridge.

A good proportion of the greenspace should be semi-natural¹ in character, given the proximity of the allocation to the Roman Road. Where development has the potential to impact a SSSI, semi-natural greenspace is particularly important as it can provide an alternative (but similar) experience to the SSSI whilst reducing pressure on the protected site.

Greenspace design should reflect Natural England's [Green Infrastructure Principles](#) – i.e. be multifunctional, accessible, varied and well-connected. Whilst the site does not require a formal SANG, the SANG guidance provides some useful principles to inform the design of semi-natural space and the features it could incorporate. The Natural England [GI Planning and Design Guide](#) may also be a useful reference.

The Indicative Land Budget (pg.107) states that open space provision equivalent to 3.2Ha/1000 will be provided across sport, play and open space typologies (total 38.4Ha). Based on the information provided, it looks like the majority (28.8Ha) would comprise modified grassland in moderate condition (i.e. amenity greenspace). If this was the sole open space provision on site, it would equate to a significant under-provision in semi-natural greenspace.

However, the updated figures provided by email (2/6/26) indicate that additional areas of greenspace will be provided, including 11.75Ha of retained woodland, and 66.45Ha of informal greenspace, the majority of which will be Other Neutral Grassland (70%). We are assuming this is in addition to the amenity typologies. It would be helpful to understand exactly how much of this new greenspace will be publicly accessible, and what that equates to as a 'per 1000 population' metric. Assuming the

¹ Natural Greenspaces are places where human control and activities are not intensive so that a feeling of naturalness is allowed to predominate. Natural and semi-natural greenspace exists as a distinct typology but also as discrete areas within the majority of other greenspace typologies.

retained woodland won't be accessible, this gives a rough estimate of 4.6Ha of semi-natural greenspace per 1000, based on the 66.45Ha. Any further detail / clarification on that would be welcome. This information will be important in assessing the extent to which the development provides accessible natural greenspace capable of mitigating recreational pressure.

Where BNG habitat is intended to provide amenity space, consideration will need to be given to its long-term management. This reflects guidance in the Greater Cambridge Biodiversity SPD 2022 (section 5.5.2) – *'While it can be possible to combine positive nature conservation management with public access, it should be noted that the potential impact of public access must be fully considered in determining the likely target condition of the biodiversity habitat and its value to any existing species populations'*.

Size and proximity criteria:

Greenspace provision should align with Natural England's Accessible Greenspace Standard (size and proximity criteria – see Table below) to ensure that people can access nature close to home. This will help to disperse recreational pressure throughout the site. The Applicant should aim to meet the criteria for doorstep, local and neighbourhood spaces. Given the scale of the development, the scheme should aim to deliver at least one wider neighbourhood greenspace.

We note that the Landscape Strategy map (pg.108) provides an indicative greenspace layout. We would welcome further information on the proposed distribution of greenspace across the site (scale and proximity) when this is refined. We suggest the Applicant demonstrates how residents will benefit from access to a range of greenspace across the site – for example, they could take a similar approach to the 'movement circles' used for bus /pedestrian walking distances (pg.86-87).

Accessible Greenspace Standard – size and proximity criteria²:

Accessible Greenspace Standard criteria	Description	Buffer Size
Doorstep Standard	Accessible Greenspace and Playing Fields of at least 0.5 ha within 200 m from home. The incorporation of Playing Fields is unique to this buffer.	200 m
Local Standard	Accessible Greenspace of at least 2 ha within 300 m from home.	300 m
Neighbourhood Standard	Accessible Greenspace of at least 10 ha within 1 km from home.	1 km
Wider Neighbourhood Standard	Accessible Greenspace of at least 20 ha within 2 km from home.	2 km
District Standard	Accessible Greenspace of at least 100 ha within 5 km from home.	5 km
Sub-Regional Standard	Accessible Greenspace of at least 500 ha of within 10 km from home.	10 km

Accessible Greenspace Standard size and proximity criteria

Additional comments on greenspace provision:

The Illustrative Masterplan (pg.80) shows a path crossing the green wedge in the south-east corner of the site (between points '2' on the map). This stops at the retained farmstead buildings. Will that path continue west across the site to link up areas of greenspace and provide an additional recreational route? Clarification around this would be welcomed.

² Taken from the AGS User Guide: [Accessible Greenspace Standard User Guide](#)

Point 11 on the map suggests there will be an active travel route at the northern end of the site. Whilst ecological mitigation will need to be considered (e.g. lighting strategies), the provision of alternative routes for cyclists may offer opportunities to reduce pressure on the Roman Road. A parallel cycleway or byway could encourage cyclists to use an alternative route whilst retaining connectivity through the wider area.

3. Supporting nature recovery and SSSI management:

The site offers a significant opportunity to contribute to nature recovery through the creation of species-rich chalk grassland. As the dominant habitat type of the Roman Road SSSI, additional chalk grassland would help buffer the SSSI, increase its ecological resilience and strengthen habitat connectivity in the wider landscape.

The creation of chalk grassland would directly support LNRS priorities for this area, including Actions G1A and G1B³:

G1A: *“Enhance existing chalk and limestone grassland sites to create a diverse set of micro habitats to support the diversity of scarce and common species associated with this habitat”.*

G1B: *“Improve biodiversity by creating species-rich calcareous grassland adjoining to, and up to 500 metres from, existing designated and other chalk and limestone grasslands. There is no minimum site size, but larger sites are preferable (in combination with other complementary habitats), and there should be a realistic ambition for sites to become priority habitat in the future (it usually takes 50-60 years to create this priority habitat from former arable land)”.*

The LNRS can also identify locally appropriate habitat to include within semi-natural greenspace. Opportunities to improve habitat connectivity and deliver wider LNRS objectives through GI should be explored.

As discussed, the long-term management of any new chalk grassland will need to be secured – this will also apply to other habitats / greenspaces provided on site. We note there are proposals to create a management company for the site and welcome this being considered at an early stage.

For interest, arable reversion and chalk grassland creation / restoration has recently been undertaken at [Fleam Dyke](#), a linear SSSI located just to the north of the Grange Farm allocation.

Opportunities for SSSI management:

We welcome suggestions that the development presents opportunities to support the long-term management and enhancement of the Roman Road SSSI. We would support measures that contribute to the restoration of the SSSI and can help to improve its condition – for example, there are sections of the site where scrub encroachment is reducing habitat quality and requires active management (e.g. Unit 4).

We intend to update the condition assessment for the site this summer, which will help to refine management actions and priorities for the SSSI. We would be happy to discuss this further with you and look at how the development could contribute towards these objectives.

4. Mitigating other impacts:

a) Bats and the Roman Road as an ecological corridor:

We understand that detailed bat surveys (as well as other ecological assessments) are yet to be completed. Findings from these surveys should further inform the design of the development, ensuring that any impacts on the function of the Roman Road as an ecological corridor are avoided, as a priority, or appropriately mitigated.

³ See pg.25 in [Part 2: Priorities and Actions](#) (Cambridgeshire and Peterborough LNRS)

As noted at the meeting, surveys associated with schemes to the north and south of the site have recorded the presence of Barbastelle bats. Whilst the PEA notes that the dominance of arable land limits value as a foraging habitat for bats, woodland edges and hedgerows could provide commuting routes for local bat populations (potentially including Barbastelles, which are highly light sensitive).

Species surveys should therefore extend beyond the red line boundary to include the Roman Road SSSI and its surrounding habitat to understand use of the SSSI and adjacent land as a foraging / commuting resource. Findings of the survey should feedback into the development of the Northern Edge and associated mitigation measures. Noting the potential for bats to be using the corridor, we would advise that as wide a dark corridor as possible is integrated into the design from an early stage. Lighting strategies should follow [best practice guidance](#). An understanding of the current light levels in areas used by bats can inform lighting design – i.e. ensuring that current levels won't be exceeded after development.

Soils:

Soil surveys should extend beyond nutrients and include a comprehensive Soil Resource Survey detailed enough to inform a Soil Resource Plan (see p2, p13, p20 of Defra [Construction Code of Practice for the Sustainable Use of Soils on Construction Sites \(publishing.service.gov.uk\)](#), which provides guidance on soil protection, and we recommend its use in the design and construction of development, including any planning conditions.

We understand that an overarching policy along these lines is likely to be included in the emerging Greater Cambridge Local Plan.

Further information is contained in the [Guide to assessing development proposals on agricultural land - GOV.UK \(www.gov.uk\)](#). [Find open data - data.gov.uk](#) on Agricultural Land Classification or use the information available on [MAGIC \(defra.gov.uk\)](#).

Water:

As discussed at the meeting, we would welcome any further information and updates regarding proposals for a water recycling centre on the site, including proposals to discharge treated wastewater into the aquifer. We understand that discussions with the Environment Agency are ongoing.

We note that hydrological connectivity surveys will be carried out, and support the requirement for these, given potential hydrological connectivity to other SSSIs in the area (e.g. Alder Carr).

As indicated in our response to the draft Greater Cambridge Local Plan consultation, Cambridgeshire and the wider region is identified by the Environment Agency as an area of serious water stress, posing a threat to many water-dependent designated sites. Natural England therefore advises LPAs to adopt the tightest water efficiency standards for new housing development, as set out in the [shared-standards-in-water-efficiency-for-local-plans.pdf](#).

I hope this provides a useful summary of our initial feedback on the proposals, and the points discussed at the meeting. We will be happy to provide further comment on the proposals as the plans develop.

For any queries regarding this letter, for new consultations, or to provide further information on this consultation please send your correspondence to consultations@naturalengland.org.uk .

Yours sincerely

Catherine Norris
West Anglia Team

This letter concludes Natural England's Advice within the Quotation and Agreement dated 25/3/26.

The advice provided in this letter has been through Natural England's Quality Assurance process

The advice provided within the Discretionary Advice Service is the professional advice of the Natural England adviser named above. It is the best advice that can be given based on the information provided so far. Its quality and detail is dependent upon the quality and depth of the information which has been provided. It does not constitute a statutory response or decision, which will be made by Natural England acting corporately in its role as statutory consultee to the competent authority after an application has been submitted. The advice given is therefore not binding in any way and is provided without prejudice to the consideration of any statutory consultation response or decision which may be made by Natural England in due course. The final judgement on any proposals by Natural England is reserved until an application is made and will be made on the information then available, including any modifications to the proposal made after receipt of discretionary advice. All pre-application advice is subject to review and revision in the light of changes in relevant considerations, including changes in relation to the facts, scientific knowledge/evidence, policy, guidance or law. Natural England will not accept any liability for the accuracy, adequacy or completeness of, nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural England.

