Preliminary Ecological Appraisal

January 2024

Land at Bridge Road Impington

> Prepared by CSA Environmental

On behalf of BDW Cambridgeshire

Report No: CSA/6849/01



This report may contain sensitive ecological information. It is the responsibility of the Local Authority to determine if this should be made publicly available.

Report	Revision	Date	Prepared	Approved	Comments
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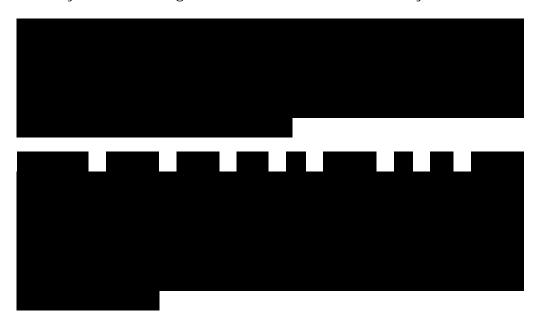


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EXECUTIVE SUMMARY

Residential development is proposed at Land at Bridge Road, Impington, for which outline planning permission will be sought.

CSA Environmental was instructed by BDW Cambridgeshire to undertake a Preliminary Ecological Appraisal (PEA) of the Site to identify any ecological constraints to development, inform scheme design, highlight opportunities for ecological enhancement/Biodiversity Net Gain and determine the need for any additional investigation/survey. As part of this PEA, a desk study and field survey of the Site were undertaken in January 2024, including a UK Habitat Classification survey.



No overriding constraints to development of the Site have been identified. Careful consideration of Biodiversity Net Gain will be required to determine the extent of on-site habitat restoration and enhancement, and any off-site biodiversity provision.

1.0 INTRODUCTION

- 1.1 This report has been prepared by CSA Environmental on behalf of BDW Cambridgeshire. It sets out the findings of a Preliminary Ecological Appraisal (PEA) of Land at Bridge Road, Impington (hereafter referred to as 'the Site'). Residential development is proposed at the Site, for which outline planning permission will be sought.
- The scope of this appraisal has been determined with due consideration for best-practice guidance provided by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017), and to the Biodiversity: Code of practice for planning and development (BS 42020:2013) published by the British Standards Institution (2013).
- The Site occupies an area of c. 9.82ha and is located around central grid reference TL 44653 62176, to the north of Cambridge. It consists of neutral grassland fields, scattered scrub, derelict land and native hedgerows (see Habitats Plan in Appendix A).

1.4 This PEA aims to:

- Characterise baseline ecological conditions of the Site and its wider context
- Identify any ecological constraints to development of the Site
- Inform scheme design
- Identify further ecological surveys and investigation necessary to inform a full Ecological Impact Assessment (EcIA) of the Site
- Highlight opportunities for ecological enhancement and Biodiversity Net Gain (BNG)
- 1.5 To achieve these aims, an ecological desk study and field survey were undertaken of the Site, the findings of which are presented herein.
- As set out in best practice guidelines (CIEEM, 2017) a PEA is typically only suitable for planning submission where there are no ecological constraints relating to the project. Where ecological constraints are identified, such as the presence of important ecological features, the effects of development on these features should be assessed within a separate EcIA report, which would supersede the PEA.

2.0 LEGISLATION, PLANNING POLICY & STANDING ADVICE

Legislation

- 2.1 Legislation relating to wildlife and biodiversity of particular relevance to this PEA includes:
 - The Conservation of Habitats and Species Regulations 2017 (as amended)
 - The Wildlife and Countryside Act 1981 (as amended)
 - The Natural Environment and Rural Communities (NERC) Act 2006
 - The Protection of Badgers Act 1992
 - The Environment Act 2021
- 2.2 This above legislation has been addressed, as appropriate, in the production of this report. Further information on the above legislation is provided in Appendix B.

National Planning Policy

- 2.3 The National Planning Policy Framework (NPPF) (Department for Levelling Up, Housing & Communities, 2023) sets out the government planning policies for England and how they should be applied. Chapter 15: Conserving and Enhancing the Natural Environment, is of particular relevance to this report as it relates to ecology and biodiversity. Further details are provided in Appendix B.
- 2.4 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their effects within the planning system.

Local Planning Policy

2.5 A number of local planning policies relate to ecology, biodiversity and/or nature conservation. These are summarised in Table 1 of Appendix B. These policies have been addressed, as appropriate, in the production of this report.

Standing Advice

Natural England and Defra's Standing Advice (Natural England & Defra, 2014) regarding habitats and protected species aims to support local authorities and forms a material consideration in determining applications in the same way as any individual response received from Natural England following consultation. Standing advice has therefore been given due consideration, alongside other detailed guidance documents, in the production of this report.

3.0 METHODS

Desk Study

- 3.1 An ecological desk study was undertaken in January 2024 comprising a review of online resources and biological records centre data as detailed below.
- 3.2 The Multi-Agency Geographic Information for the Countryside (MAGIC) online database was reviewed to identify nature conservation designations within the following search radii:
 - Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar sites within 10km of the Site (including possible/proposed sites)
 - Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Local Nature Reserves (LNR) within 3km of the Site
 - Other relevant data e.g. Ancient Woodland Inventory within 1km of the Site
- A review was undertaken of the location of any such designations, their distance from and connectivity with the Site, and the reasons for their designation. This information was used to determine whether they may be within the proposed development's Zone of Influence (Zol).
- 3.4 Cambridgeshire and Peterborough Environmental Records Centre (CPERC) was contacted for details of any non-statutory nature conservation designations and records of protected/notable habitats and species. This information was requested for an area encompassing the Site and adjacent land within c. 2km of its central grid reference. This search area was selected to include the likely zone of influence upon non-statutory designations and protected or notable habitats and species.
- Further online resources were reviewed for information which may aid the identification of important ecological features. The Woodland Trust's online Ancient Tree Inventory was reviewed for known ancient or veteran trees within the Site and adjacent land. The South Cambridgeshire District Council online map was used to determine tree preservation orders (TPOs) on or adjacent to the Site. Interactive online mapping provided by the charity 'Buglife' was used to determine whether the Site falls within an Important Invertebrate Area. MAGIC was used to determine soil types within the Site.
- In accordance with Natural England's Great Crested Newt Mitigation Guidelines (2001), a desktop search was undertaken to identify ponds within 500m of the Site which may have potential to support breeding great crested newts *Triturus cristatus*, using Ordnance Survey (OS) mapping, the MAGIC database and aerial photography.

3.7 Where possible under the terms of the data provider, relevant desk study data are presented in Appendix C.

Field Survey

- A UK Habitat Classification ('UKHab') survey was carried out in fine and dry weather conditions on 9 January 2024 by Rhodri Gruffydd, FISC Level 3, and Jamie Woollam CEcol MCIEEM, FISC¹ Level 5, encompassing the Site and immediately adjacent habitats that could be viewed.
- 3.9 UKHab is a unified and comprehensive system for mapping and classifying habitats, designed to provide a simple and robust approach to surveying and monitoring, and replaces Phase 1 Habitat survey methods. The method allows for identification of important habitat types, including habitats of Principal Importance under Section 41 (S41) of the NERC Act (2006) and Habitats Directive Annex I habitats. This method also allows for direct translation of habitats into the Statutory Biodiversity Metric (Defra, 2023).
- 3.10 The following parameters were adopted for the UKHab survey undertaken for this PEA:
 - UKHab Professional edition (Butcher et al., 2020, commercial End User Licence Agreement (EULA))
 - Minimum Mappable Unit (MMU):
 - o 10m²/0.001ha (polygons)
 - o 5m (linear)
 - Primary Habitats recorded to a minimum of Level 2 (see below) with UKHab codes provided
 - Mandatory secondary codes used
 - Base-mapping comprising a combination of aerial imagery and topographic information
- 3.11 Primary Habitats are recorded to a minimum of Level 2. Where the survey is conducted at an appropriate time of year (e.g. May to July for grassland) habitats may be recorded to Level 3, 4 or 5, only if conditions and the experience of the surveyor allow.
- 3.12 Alongside the UKHab survey, additional field survey information was collected, comprising:
 - Detailed floral species lists recorded for each identified habitat/parcel
 - Further habitat condition information based upon the Statutory Biodiversity Metric (Defra, 2023) condition assessment guidance
 - Evidence of, or potential for, European Protected Species (EPS) (including bats, great crested newt, dormouse and otter)

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 $^{^{\}mbox{\tiny 1}}$ Field Identification Skills Certificate, Botanical Society of Britain and Ireland

- Evidence of, or potential for, other protected species (including birds, reptiles, water vole, badger and certain invertebrates)
- Evidence of, or potential for, other notable species (including S41 Species of Principal Importance as well as notable, rare, protected or controlled plants and invertebrates)
- Any other survey information relevant to ecological matters
- Results of the UKHab survey are presented on the Habitats Plan in Appendix A. Photographs of the habitats at the Site are provided in the Baseline Ecological Conditions section and Appendix D provides a list of floral species recorded in each habitat parcel. Nomenclature for higher plants within this report is consistent with the fourth edition of The New Flora of the British Isles (Stace, 2019).

Limitations

3.14 There were no limitations to the desk study. All areas of the Site were accessible during the field survey. The UKHab survey was undertaken outside of the optimal season for botanical surveying, and therefore, it is likely that some species present on site were not recorded during the survey. However, it was still possible to identify the broad habitat types on site for the purpose of this survey.

Evaluation and Assessment

3.15 The evaluation and assessment of ecological features is beyond the scope of a PEA and has therefore not been undertaken here. Formal evaluation and assessment of any identified important ecological features should be undertaken as part of either a full EcIA, or receptor-specific survey and assessment in accordance with the published CIEEM method (CIEEM, 2018).

4.0 BASELINE ECOLOGICAL CONDITIONS

Nature Conservation Designations

Statutory

- 4.1 There are no statutory designations covering any part of the Site and no international statutory designations were identified within 10km of the Site.
- 4.2 Two national statutory designations were identified within 3km of the Site. These were the Histon Road SSSI (c. 0.9km south of the Site) and Traveller's Rest Pit SSSI (c. 2.6km south-west of the Site). However, these sites are designated solely for their geology and therefore not assessed further within this report.
- Two local statutory designations were identified within 3km of the Site. These were the Bramblefields LNR (c. 2.6km south-east of the Site) and Logan's Meadow LNR (c. 2.6km south-east of the Site).
- 4.4 These statutory designations are described in Table 1 below.

Non-Statutory

4.5 One non-statutory designation was identified within 2km of the Site. This was the King's Hedges Hedgerow CWS (c. 0.6km south-east of the Site). This non-statutory designation is described in Table 1 below.

Table 1. Statutory and Non-Statutory Designations within search radii

Site Name & Designation	Distance & Direction from Survey Area	Special Interests or Qualifying Features				
International Design	ations within 10km					
·=	E/					
National Designation	National Designations within 3km					
Histon Road SSSI	c. 0.9km south	Geology only.				
Traveller's Rest Pit SSSI	c. 2.6km south- west	Geology only.				
Local Designations v	vithin 3km					
Bramblefields LNR	c. 2.6km south-east	A reserve covering a 2ha area of grassland, scrub and wetland, with two small ponds. The scrub provides habitat for numerous birds, and hedgehog and common lizard have been recorded on site.				
Logan's Meadow LNR	c. 3km south-east	A small reserve next to the River Cam which was formerly a grazing marsh. The reserve was extended in 2016 to include reedbeds and wet woodland. Species recorded on site include Daubenton's bat, water vole, otter, kingfisher, among other birds.				

King's Hedges Hedgerow CWS	c. 0.6km south-east	The site comprises a hedgerow 100m in length and 2m in width, with four or more woody species.
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Ancient Woodland

- There is no ancient woodland, as shown on the ancient woodland inventory, covering any part of the Site or immediately adjacent land. The closest area of ancient woodland described on the ancient woodland inventory is Madingley Wood (c. 4.7km south-west of the Site).
- 4.7 No trees on or adjacent to Site are listed on the Ancient Tree Inventory.

Tree Preservation Orders (TPOs)

- 4.8 There is a TPO designated by South Cambridgeshire District Council (reference: 0010 The Coppice and Bridge Road) on trees within the copse adjacent to the west of the Site.
- 4.9 The copse has a canopy predominantly of beech Fagus sylvatica, ash Fraxinus excelsior and sycamore Acer pseudoplatanus, with some trees overhanging the Site along the track and along the western boundary of Field 3.

Habitats and Flora

- 4.10 Habitats recorded on-site are illustrated in Appendix A with detailed species lists provided in Appendix D. Relevant UKHab codes are provided within parentheses for each habitat type recorded [e.g. Other Neutral Grassland (q3c)].
- 4.11 The majority of the Site consists of freely draining lime-rich loamy soils which is anticipated to influence vegetation present. The north-west corner of Field 1 consists of lime-rich loamy and clayey soils with impeded drainage.

Notable Flora Records

- 4.12 The CPERC provided 137 records of 57 notable plant species from within the search area. Of these, 24 records were from Cambridge Science Park (c. 1.1km east of the Site) and 14 records from the Cambridge to St Ives Guided Busway, which is adjacent to the north of the Site. Records of potential relevance to the Site include species associated with grassland habitats such as field scabious *Knautia arvensis*, meadow saxifrage Saxifraga granulate and great burnet Sanguisorba officinalis.
- 4.13 Other species of note include 28 records of nine species listed within the Wildlife and Countryside Act's Schedule 9 (WCA9) list of invasive non-native species. This included records of Nuttall's waterweed Elodea nuttallii from Chivers Lake (also known as Impington/Cawcutts Lake) adjacent to the south-east of the Site, and variegated yellow archangel Lamiastrum galeobdolon subsp. Argentatum and Japanese knotweed

Reynoutria japonica located c. 0.5km south-west of the Site. However, the majority of records were given to a grid reference accuracy of 1km and therefore their exact location could not be determined. No non-native invasive species were identified during the survey.

Other Neutral Grassland (g3c)

- 4.14 The majority of the site comprises other neutral grassland divided into three fields (F1-F3) detailed below. There is no evidence of livestock grazing within any of the fields, however, rabbit *Oryctolagus cuniculus* were recorded during the survey, suggesting a low level of grazing in some areas.
- Field F1 has a tall, tussocky sward in the northern half and a mown section in the southern half. Both sections are similar in composition with the sward dominated by grasses (up to 90% of the sward). Cock's-foot Dactylis glomerata is the dominant species, forming large tussocks, which suggests a lack of recent management. Other grasses present include frequent fescue Festuca sp. (likely red fescue Festuca rubra) throughout the sward and occasional patches of false-oat grass Arrhenatherum elatius and common couch Elytrigia repens. There is one patch of wood small-reed Calamagrostis epigejos in the centre of the field. Forb species are limited to taller species such as dock Rumex sp., creeping thistle Cirsium arvense and hogweed Heracleum sphondylium, which are occasionally present throughout.



Photograph 1. Field F1 with tall, tussocky sward in the northern half and mown in the southern half (looking west).

- 4.16 The south-western corner of Field F1 is dominated by stands of tall forb vegetation including common nettle, creeping thistle and wild teasel Dipsacus fullonum, while the western boundary has small patches of scattered scrub including bramble Rubus fruticosus agg., dog-rose Rosa canina sp. and hawthorn Crataegus monogyna.
- 4.17 Another area of tall forb vegetation is present on the western side of the derelict urban land in the far west of the Site. This is dominated by common nettle, with a ground layer of mosses and emergent forget-menot *Myosotis* sp.
- 4.18 Field F2 has a tall sward in the northern half and a mown section in the southern half. A large area of the field is damaged by motorbike access which is described in its own section below. The sward is dominated by grasses (up to 85%), with cock's-foot the dominant grass. Other species include abundant creeping bent Agrostis stolonifera and yorkshire-fog Holcus lanatus, and frequent fescue. Forbs in the northern half are restricted to tall species including dock sp. and hogweed. The mown section in the southern half has a slightly higher forb diversity with ragwort Senecio sp., creeping buttercup Ranunculus repens, mouse-ear Cerastium sp. and crane's-bill Geranium sp. present.
- Field F3 is smaller and enclosed by hedgerows and the wooded copse to the west. The sward is tall and tussocky, with grasses comprising up to 90% of the sward. A 2m-wide vegetated vehicle track transects the centre of the field, which has a shorter sward. Grasses include abundant cock's-foot and false-oat grass, with frequent yorkshire-fog and occasional perennial rye-grass Lolium perenne. Forbs are again limited to dock and hogweed, with some common nettle and creeping thistle along the western boundary.



Photograph 2. Field F3 with tall, tussocky sward (looking west).

4.20 Dry ditches (D1 and D3) border the southern boundary of Field F1 and the western boundary of the southern half of Field F2 respectively. These ditches contain ruderal species such as creeping thistle, common nettle *Urtica dioica*, cleavers *Galium aparine* and cow parsley *Anthriscus sylvestris*, indicating higher nutrient levels. Ditch D2 lies between Fields F1 and F2 and was full of water during the survey, after a period of wet weather. However, aerial imagery and the absence of aquatic marginal vegetation suggests it is unlikely to carry water for more than four months of the year. Small patches of bramble and common nettle are present along the ditch, as well as scattered trees including a large ash.



Photograph 3. Ditch D2, filled with water at the time of survey but no aquatic marginal vegetation present (looking north).

Modified Grassland (g4)

- 4.21 Well-used informal footpaths approximately 1.5m wide runs along the inside perimeter of Field F1 and south of Hedgerow H6. The sward is much shorter than the surrounding grassland and is dominated by perennial rye-grass with frequent cock's-foot. Forbs are largely absent except for some creeping buttercup.
- 4.22 Within the entire northern half of Field F2, there a ring up to 10m wide of bare ground caused by apparent motorbike damage. This damage also extends along the entire eastern length of the field. Vegetation is sparse, with only small patches of annual meadow-grass *Poa annua*.



Photograph 4. Northern half of Field F2, with extensive damage from off-road vehicle use (looking west).

Built-up Areas and Gardens (u1)

4.23 An area within the far west of the Site comprises derelict urban land including ruined buildings, neglected furniture and other equipment, and bare ground. Scattered areas of bramble and elder Sambucus nigra scrub is present throughout, along with scattered sycamore trees.



Photograph 5. Derelict land in the far west of the Site, with neglected equipment, and scattered trees and scrub (looking north-west).

4.24 There are twelve small, derelict single-storey outbuildings, previously used as chicken coops and storage, in addition to two metal shipping containers. Some outbuildings have timber frames with wooden timber or corrugated metal walls and roofs of corrugated metal or corrugated concrete material. Other outbuildings are glasshouses or have brick and breezeblock walls with corrugated metal roofs, and windows, some of which are boarded up. All the outbuildings are in disrepair, with collapsed or damaged roofs, broken windows and damaged walls.



Photograph 6. Ruined building with damaged roof in the far west of the Site.

Bramble Scrub (h3d)

4.25 Areas of dense bramble scrub are present in the built-up area, the western boundary of Field F1 and the southern boundary of Field F3.



Photograph 7. Area of bramble scrub in the far west of the Site, in the background. Log piles (foreground) provide suitable habitat for amphibians and reptiles.

<u>Artificial Unvegetated, Unsealed Surface (u1c)</u>

4.26 A vehicular access track is present in the far west of the Site, providing gated access from the B1049 Bridge Road to Field F1. The surface is predominantly bare ground with some gravel. Patches of shade-tolerant forbs including common nettle, green alkanet *Pentaglottis sempervirens*, garlic mustard *Alliaria petiolata* and common ivy *Hedera helix* are present in the central island.



Photograph 8. Vehicle track with patches of vegetation in the far west of the Site, providing access from Bridge Road (looking west).

<u>Developed Land; Sealed Surface (u1b6)</u>

4.27 In the far west of the Site there is a hardstanding driveway providing access from Bridge Road to a property to the north-west of the Site. A small section of the road leading to the Holiday Inn to the south is within the site boundary.

Hedgerows (h2)

- 4.28 A total of five native hedgerows are present within or adjacent to the Site. All hedgerows are well-established and are not subject to current management permitted to grow out vertically and horizontally. Hedgerow H1 is adjacent to the northern boundary of the Site, next to the Guided Busway, and has hedgerow planting within gaps. Hedgerow H2 is a small hedgerow lying between Fields F1 and F3. Hedgerow H3 borders the east of Field F2 and is associated with a dry ditch. Hedgerow H4 borders the east of Field F3 and has a number of trees. Hedgerow H5 borders the south of Field F2.
- 4.29 Mature trees within hedgerows include sycamore, blackthorn *Prunus spinosa* and turkey oak *Quercus cerris*. Species in the understorey layer include hawthorn, elder, field maple *Acer campestre*, wild privet *Ligustrum vulgare*, hazel *Corylus avellana*, willow *Salix* sp. oak *Quercus* sp. and ash. Climbers including bramble and dog-rose are present within many of the hedgerows. Ground flora is sparse, and mostly restricted to a few species such as ivy, lords-and-ladies *Arum maculatum* and wood avens *Geum urbanum*, although agrimony *Agrimonia* sp. and hedge bedstraw *Galium mollugo* were noted within Hedgerow H1. Species

indicative of high nutrient levels such as common nettle, creeping thistle and cow parsley are present in most places at fairly low frequency.



Photograph 9. Hedgerow H1 with elder, hazel and blackthorn. A well-used modified grassland path follows the perimeter (looking east).



Photograph 10. Hedgerow H4 with grown-out blackthorn and sycamore trees (looking north).



Photograph 11. Hedgerow H4 with grown-out blackthorn and sycamore trees (looking north).

Non-native and Ornamental Hedgerow (h2b)

4.30 A dense ornamental beech hedgerow is present along the southern boundary of Field F3, next to the road leading to the Holiday Inn. A large felled tree with stump remaining is present (Target Note TN1).



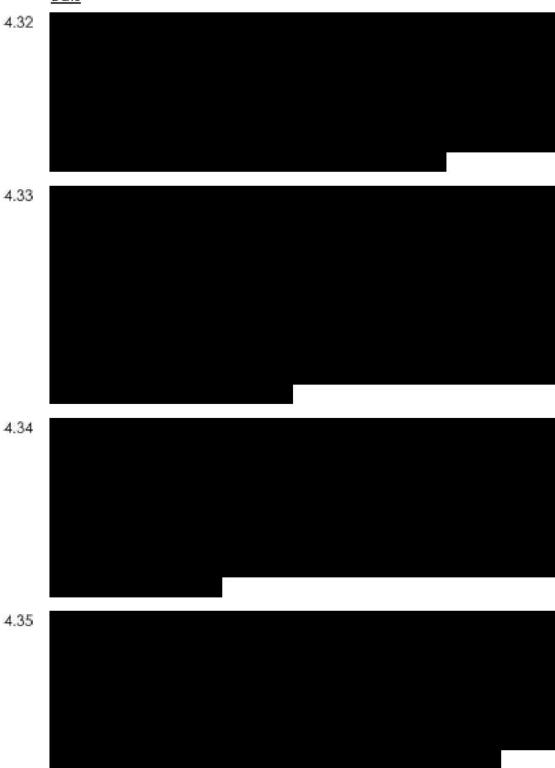
Photograph 12. Hedgerow H4 with grown-out blackthorn and sycamore trees (looking north).

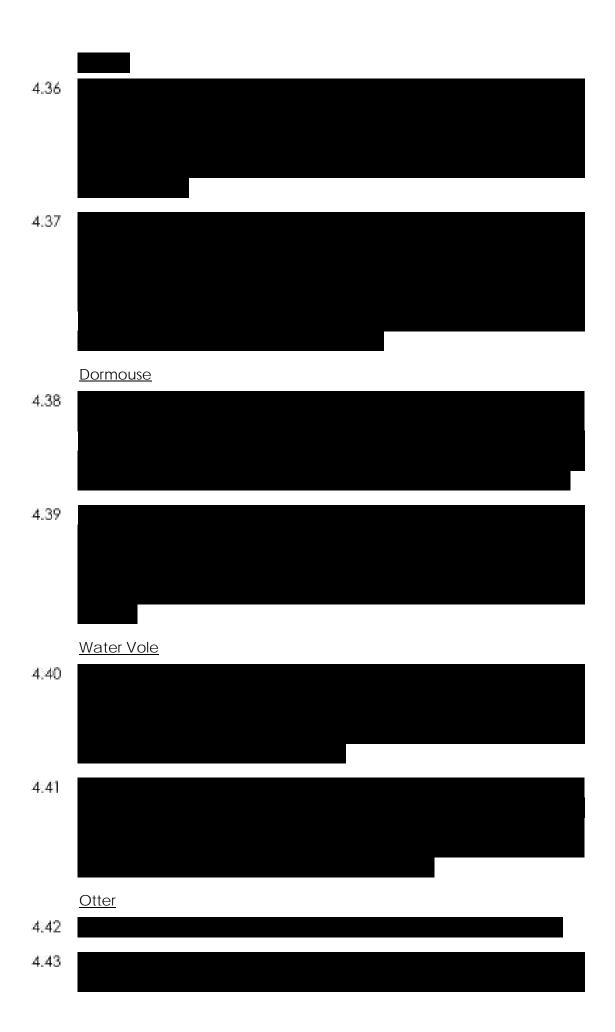
Line of Trees (w 33)

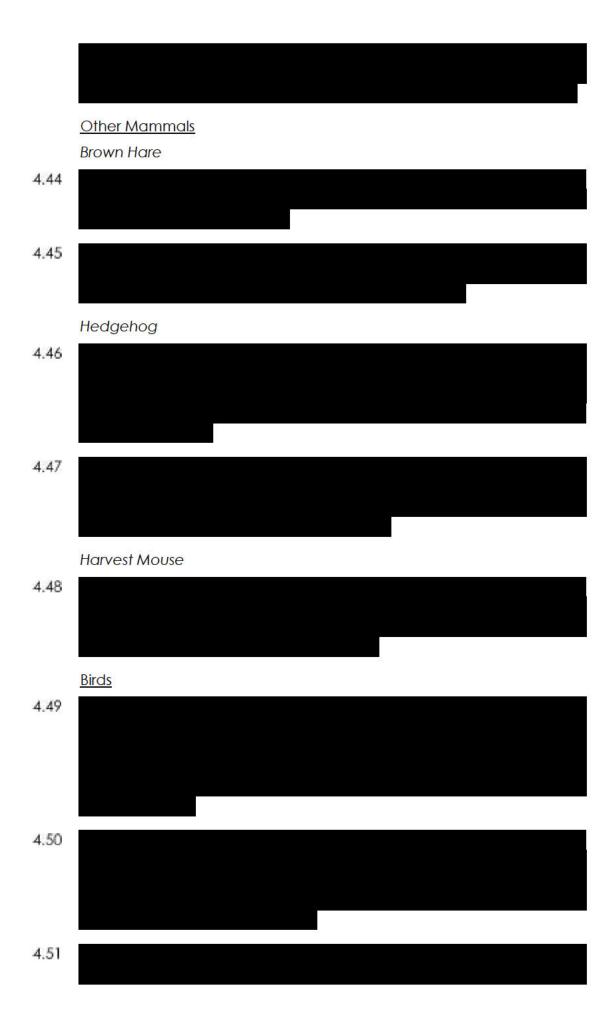
4.31 A line of grown-out conifer trees is present in the far west of the Site (LT on the Habitats Plan in Appendix A).

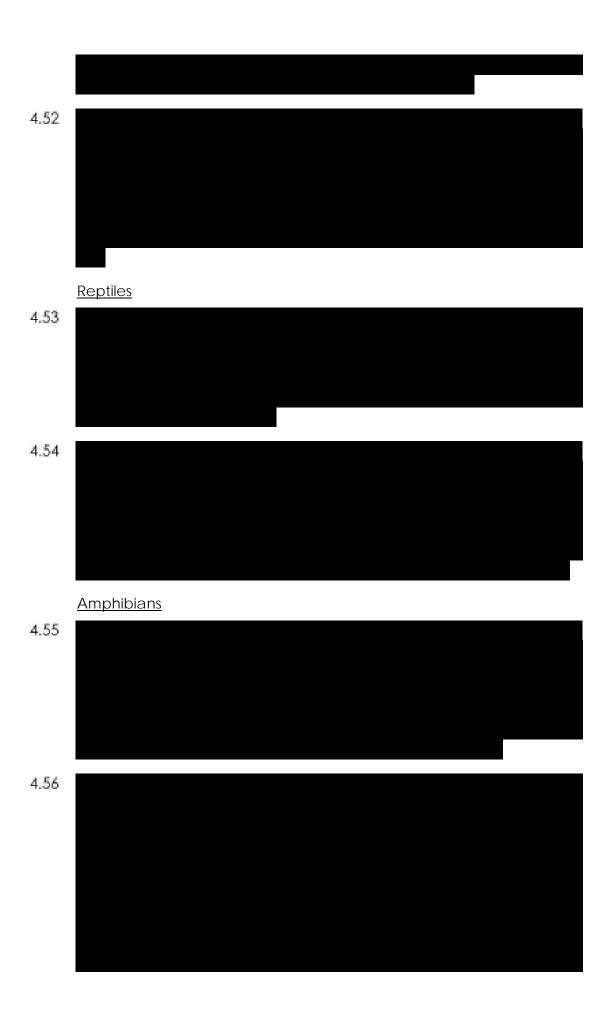
Fauna

Bats











5.0 DISCUSSION AND RECOMMENDATIONS

Nature Conservation Designations

Statutory

Bramblefields LNR and Logan's Meadow LNR

The Site lies c. 3km from Bramblefields LNR, with a footpath and pavement along the Busway linking the Site to the LNR. The Site lies c. 3.6km from Logan's Meadow LNR, with no formal footpath, only pavements within residential areas linking the Site to the LNR. The development is likely to cause a small increase in visitor pressure to these protected sites. However, an area of open green space is proposed on site and there are informal footpaths connecting the Site to a circular walking route around the adjacent Chivers Lake. This will reduce the recreation pressure on the LNR. To further reduce potential recreational impacts, appropriate signage encouraging the use of open space at the Site and information leaflets should be provided to educate new residents on the sensitive habitats and species within the LNR and how to minimise their impacts.

Non-Statutory

King's Hedges Hedgerow CWS

The Site lies c. 0.75km (walking distance) from King's Hedges Hedgerow CWS, with a footpath along the Busway linking the Site to the CWS. The CWS has a public footpath running through it. Similar recreational pressures are expected as a result of the proposed development. However, the measures listed above are anticipated to also relieve any potential pressures upon this designated site.

Habitats and Flora

- Emerging legislation and existing policy supports the provision of Biodiversity Net Gain (BNG) through development. The NPPF states that planning decisions should provide net gains for biodiversity, and central government have legislated a requirement for at least 10% net gain in relation to all planning permissions, expected to take effect in early 2024. Applying the Biodiversity Metric to quantify BNG in association with development is already supported in current Planning Practice Guidance.
- It is recommended that the scheme design be informed by the application of the Statutory Biodiversity Metric published by Defra, to provide a quantitative assessment of losses or gains in biodiversity.
- 5.5 The Site is dominated by habitats of moderate ecological interest, specifically neutral grassland. As such, in order to deliver 10% increase in biodiversity the development of the Site is likely to require either a higher

provision of land reserved for habitat restoration and/or creation than is outlined in the current scheme design and /or provision of off-site biodiversity units secured through an appropriate legal mechanism.

Hedgerows and trees

- All hedgerows on and bordering the Site are native, except for Hedgerow H5. Hedgerows are a Section 41 Habitat of Principal Importance and represent important foraging, refuge and dispersal habitat for a range of fauna. Hedgerow H1 to the north of the Site potentially qualifies as species-rich and could be considered 'ecologically important' under the Hedgerows Regulations 1997. Existing hedgerows are expected to be retained as part of the proposed development, however, if this changes, further survey is recommended to determine the ecological importance of on-site hedgerows.
- 5.7 Retained trees, including those adjacent to the construction zone, will be protected during the construction phase through compliance with standard arboricultural practice (BS5837:2012).

Fauna

Bats

All British bat species and their roosts are protected under Regulation 43 of the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended).



- 5.10 Given the presence of navigational features and potential foraging opportunities for bats at the Site, monitoring of bat activity is recommended to determine the species present, pattern of use and overall value of the Site to bats. Furthermore, where hedgerows and trees are to be removed or subject to significant arboricultural works, a Preliminary Roost Assessment should first be carried out to assess their potential to support roosting bats.
- 5.11 The proposals are likely to result in an increase in artificial lighting at the Site. Artificial lighting placed at the Site during construction and operational phases has the potential to disturb roosting/foraging/commuting bats and other nocturnal wildlife. To

ensure retained hedgerows maintain their ecological function for bats, a sensitive external lighting scheme will be prepared. The lighting scheme will be developed in consultation with a bat ecologist to avoid/minimise light spill onto retained and created habitat. This is to maintain dark corridors for bats and other nocturnal wildlife.

<u>Badger</u>

5:12 Badgers are protected under the Protection of Badgers Act (1992). Killing or injury of a badger, or interference with a sett is prohibited. Although no evidence of badgers was identified during the survey, there was extensive mammal activity across the Site, including burrows, digging and paths. Tussocky grassland, hedgerows and scrub on site provide opportunities for sett creation. Therefore, a full badger survey is recommended to identify and map all sett entrances that may be present at the Site, in addition to any evidence that the Site is being used by badger for foraging or dispersal.



- During the construction phase, badgers are at risk of falling into open excavations or entering open-ended pipework (above 150mm diameter), risking an offence under the above legislation. Therefore, the following precautionary measures will be implemented which could be secured via a Planning Condition:
 - Pre-construction badger survey and monitoring for signs of any new sett digging.
 - Covering any open excavations with wooden boards, or fitting them with appropriate escape ramps, in order to prevent badgers and other mammals falling into them and injuring themselves or becoming trapped.
 - Monitoring of the Site for any new sett excavation during prolonged remediation, construction or landscaping works.

Water Vole

5.15 Water vole have full legal protection under the Wildlife & Countryside Act 1981 (as amended) and Countryside Rights of Way Act 2000. Furthermore, water vole is a species of principal importance under the Natural Environment and Rural Communities (NERC) Act 2006.



Other Mammals

Brown Hare

5.17 There are records of brown hare within the wider landscape and grassland, hedgerows and scrub on-site provide suitable habitat for this species to lay-up and forage. The loss of grassland and scrub habitat across the Site will result in a reduction of suitable habitat for this species within the local area. However, arable land to the north of the Site continues to provide extensive areas of suitable habitat for brown hare.

Hedgehog

5:18 Hedgehog may make use of the Site for foraging, shelter and dispersal. During the construction phase there is a risk of hedgehog falling into and becoming trapped within open excavations. The above measures recommended to safeguard badgers will also mitigate the risks to hedgehog.



Birds

5.20 All wild birds are protected from killing and injury, and their nests and eggs are protected from damage and destruction, under the Wildlife and Countryside Act 1981 (as amended). Therefore, any clearance of nesting habitat or features required to facilitate the development should avoid the period between March and August (inclusive) when nesting birds are most likely to be present. If this is not possible, habitat will need to be checked for nesting birds by a suitably qualified ecologist prior to clearance, with works only proceeding if no nesting evidence or behaviour are observed.



Reptiles

5.23 All British reptile species are listed within Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are afforded protection against killing and injury under parts of sub-section 9(1) of the Act. In addition, all British reptile species are species of principal important under S41 of the NERC Act (2006) in England.

5:24

Amphibians

5.25 Great crested newt (GCN) and their habitats are strictly protected under the Wildlife and Countryside Act 1981 (as amended) and the conservation of Habitats and Species Regulations 2010. In combination, this legislation protects great crested newts from deliberate capture, killing and injury, intentional or reckless disturbance, damage or destruction of a resting site or breeding place, and intentional or reckless damage, destruction or obstruction of a breeding site or rest place.



5.27 Common toad is a species of principal important under S41 of the NERC Act (2006) in England. The adjacent Chivers Lake has previously been recorded as a toad breeding location with large numbers of toads. Appropriate design and/or enhancement measures should be considered to maintain access to the lake from surrounding habitat and provide suitable terrestrial habitat for toads on site, as detailed below.

Summary of Recommendations

5.28 Based on the ecological constraints identified above, Table 2 summarises recommendations for further work necessary to determine the need for, and scope of, any avoidance, mitigation and/or compensation measures to address potential adverse effects of development. The outcome of this further work will inform an EcIA of the final scheme.

 Table 2. Recommendations for further investigation/survey

Ecological Feature	Further Work	Applicable Timescales
Habitats & Flora	Habitat condition assessments	May - July
	to inform Biodiversity Metric for	
	BNG.	
	Detailed botanical surveys of	
	grassland habitat on site, along	
	with hedgerows (if required).	
Bats	Preliminary ground-based roost	Anytime, optimal
	assessment of on-site trees	December-March
	Seasonal night-time bat	April-October, one survey
	walkover (NBW) transects	per season (spring,
		summer, autumn)
	Automated static monitoring	April-October, monthly
Badger	Full badger survey	Anytime, optimal
		February-April or
		September-October
Water Vole	Water vole survey of ditches on	Two visits, minimum two
	site.	months apart – one Mid-
		April to June and one
		July-September
Birds	Wintering bird scoping survey to	One initial visit November-
	assess whether further wintering	February, then further
	bird surveys are required	monthly visits November-
		February (if required)
	Breeding bird surveys	Six visits between March-
		early July
Reptiles	Reptile surveys	Seven surveys March-
		October
Great Crested Newt	HSI assessment of identified	Anytime
	waterbodies within 500m of the	- Section 1
	Site	
	eDNA or presence/likely	Mid-March to Mid-June
	absence surveys (or adoption of	(timing and number of
	District Level Licensing)	visits subject to approach)

Opportunities for Ecological Enhancement

5.29 To promote adherence to the NPPF and South Cambridgeshire Local Plan (adopted in 2018), the following opportunities for ecological enhancement have been identified:

- Incorporation of native plants and those of wildlife importance into landscaping scheme to provide foraging opportunities for bats, birds and invertebrates
- Improved connectivity of green infrastructure in line with the Cambridgeshire Green Infrastructure Strategy (2011), including hedgerow restoration and infill planting
- Provision of new bat roosting and bird nesting opportunities within new buildings and retained mature trees (number and specification to be determined at design stage)
- Provision of gaps (13cm x 13cm) in new fencing to promote habitat connectivity across and within the Site for hedgehog and common toad
- Provision of wildlife ponds to increase suitable habitat in the local area for amphibians including great crested newt and common toad.

6.0 CONCLUSIONS

- 6.1 Confirmed ecological constraints to development at the Site have been identified as the presence of:
 - Hedgerows and mature trees
- 6.2 The following additional investigation/survey/assessment work is recommended to inform an evidence-based EcIA of the proposed development, such that suitable ecological impact avoidance, mitigation and/or compensation measures may be adopted:
 - Botanical survey and condition assessment
 - Biodiversity Net Gain (BNG) assessment
 - Bats surveys
 - Badger survey
 - Water vole survey
 - Breeding bird survey and wintering bird scoping survey
 - Reptile surveys
 - Great crested newt surveys
- Recommendations for ecological enhancement measures that could be delivered as part of development at the Site have been provided here-in, which will aid accordance with the South Cambridgeshire Local Plan.
- 6.4 No overriding constraints to development have been identified subject to the implementation of appropriate mitigation measures in respect of confirmed ecological constraints, and further recommended survey work.

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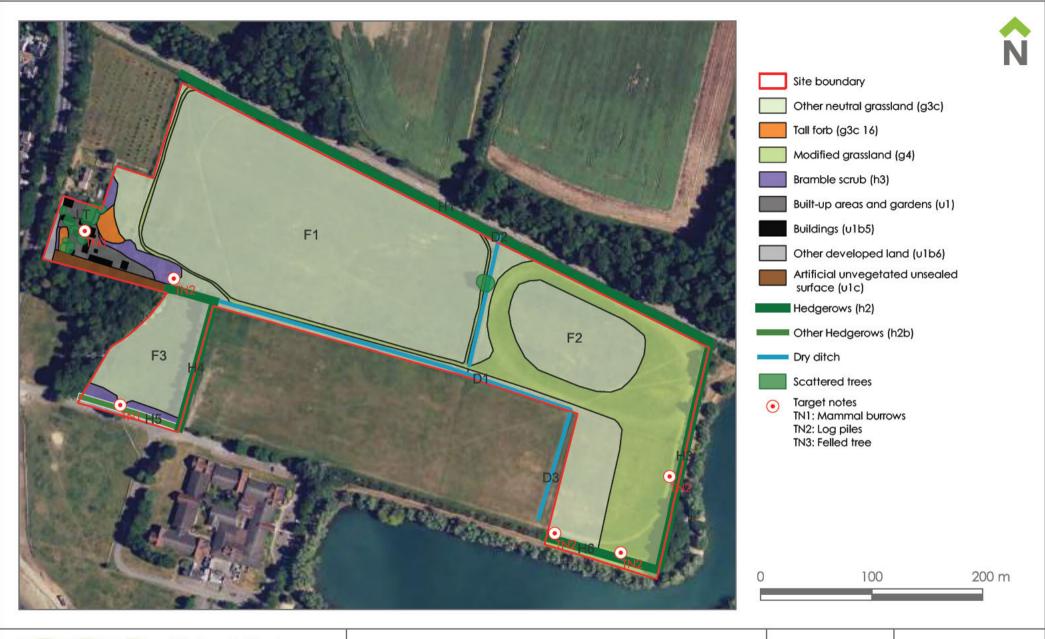
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Appendix A

Habitats Plan & Habitat Summary Table





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Project	Land at Bridge Road, Impington	Date January 2024	Drawing No. CSA/6849/104
Drawing Title	Habitat Plan	Scale Refer to scale	Rev -
Client	BDW Cambridgeshire	Drawn RG	Checked JW

Appendix B

Legislation and Planning Policy

- 1.1. The Conservation of Habitats and Species Regulations 2017 (as amended) make prescriptions for the designation and protection of Sites of Community Importance ('European sites', i.e. Special Areas of Conservation and Special Protection Areas) and European Protected Species (EPS). The latter include all native bats, great crested newts, dormice, otters and certain reptiles, listed under Annex II of the Regulations. Following the UK's departure from the European Union, the provisions of the Regulations have been retained through enactment of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which came into force on 31 December 2020.
- 1.2. The Wildlife and Countryside Act 1981 (as amended, principally by the Countryside and Rights of Way Act 2000) forms the basis for protection of statutory designated sites of national importance (e.g. Sites of Special Scientific Interest; SSSIs) and native species that are rare and vulnerable in a national context. Additionally, badgers are protected under the Protection of Badgers Act 1992.
- 1.3. The **Environment Act 2021** received Royal Assent in November 2021. Through an amendment to the Town and Country Planning Act 1990 the Environment Act will introduce a mandatory requirement for all planning permissions to be conditional upon the submission of a Biodiversity Gain Plan for approval by the Local Planning Authority. The Plan will need to demonstrate a net gain of at least 10% in the biodiversity value of the development site. These provisions are not yet in force, pending their enactment through secondary legislation.
- 1.4. Section 40(1) of the Natural Environment and Rural Communities (NERC) Act 2006 states that each public authority, "must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity." This legislation makes it clear that planning authorities should consider impacts to biodiversity when determining planning applications, with particular regard to the Section 41 (S41) lists of 56 habitats and 943 species of principal importance. The UK Biodiversity Action Plan (BAP) has been superseded by the Biodiversity 2020 Strategy, however Local BAPs continue to influence biodiversity management and conservation effort, including through the spatial planning system, at the local scale.
- 1.5. The National Planning Policy Framework (2023) (NPPF) sets out government planning policies for England and how they should be applied. With regards to ecology and biodiversity, Chapter 15: Conserving and Enhancing the Natural Environment, paragraph 174, states that the planning system and planning policies should minimise impacts on and provide net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

- 1.6. Paragraph 180 sets out the principles that local planning authorities should apply when determining planning applications:
 - 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.
 - 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.
- 1.7. Accompanying the NPPF, central government guidance on the implementation of planning policies is set out within online Planning Policy Guidance (PPG). The Natural Environment PPG addresses principles across a broad spectrum of topics targeting biodiversity conservation, from individual site and species protection through to the supporting of ecosystem services, and the use of local ecological networks to support the national Nature Recovery Network. In particular, the PPG promotes the delivery of measurable Biodiversity Net Gain through the creation and enhancement of habitats alongside development.
- 1.8. The Government Circular 06/2005, which is referred to within the NPPF, defines statutory nature conservation sites and protected species as a material consideration in the planning process.
- 1.9. Local planning policies of relevance to ecology, biodiversity and/or nature conservation have been set out in Table 1 below.

Table 1. Summary of regional and local planning policy relating to ecology

Policy	Summary	
South Cambridgeshire Local Plan (adopted 2018)		
Policy NH/4:	Development proposals where the primary objective is	
Biodiversity	to conserve or enhance biodiversity will be permitted.	

Policy	Summary		
#C00000000	New development must aim to maintain, enhance,		
	restore or add to biodiversity. Opportunities should be taken to achieve positive gain through the form and design of development. Measures may include creating, enhancing and managing wildlife habitats and networks, and natural landscape. The built environment should be viewed as an opportunity to fully integrate biodiversity within new development		
	through innovation. Priority for habitat creation should be given to sites which assist in the achievement of targets in the Biodiversity Action Plans (BAPs) and aid delivery of the Cambridgeshire Green Infrastructure		
	Strategy. 3. If significant harm to the population or conservation status of a Protected Species, Priority Species ¹ or Priority Habitat 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 will be refused.		
	4. Where there are grounds to believe that a proposal may affect a Protected Species, Priority Species or Priority Habitat, applicants will be expected to provide an adequate level of survey information and site assessment to establish the extent of a potential impact. This survey information and site assessment shall be provided prior to the determination of an application.		
	5. Previously developed land (brownfield sites) will not be considered to be devoid of biodiversity. The reuse of such sites must be undertaken carefully with regard to existing features of biodiversity interest. Development proposals on such sites will be expected to include measures that maintain and enhance important features and appropriately incorporate them within any development of the site.		
	6. Planning permission will be refused for development resulting in the loss, deterioration or fragmentation of irreplaceable habitats, such as ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss.		
	 Climate change poses a serious threat to biodiversity and initiatives to reduce its impact need to be considered. 		
	¹ Priority Species and Habitats are those that are identified within a Biodiversity Action Plan (BAP) and / or the Natural Environment and Rural Communities Act, 2006, Section 41.		
Policy NH/6:	The Council will aim to conserve and enhance green infrastructure within the district. Proposals that equals		
Green Infrastructure	infrastructure within the district. Proposals that cause loss or harm to this network will not be permitted unless		
	the need for and benefits of the development		
	demonstrably and substantially outweigh any adverse		
	impacts on the district's green infrastructure network.		
	The Council will encourage proposals which: a. Reinforce, link, buffer and create new green		
	infrastructure; and		

Policy	Summary		
	 b. Promote, manage and interpret green infrastructure and enhance public enjoyment of it. 		
	 The Council will support proposals which deliver the strategic green infrastructure network and priorities set out in the Cambridgeshire Green Infrastructure Strategy, and which deliver local green infrastructure. 		
	 All new developments will be required to contribute towards the enhancement of the green infrastructure network within the district. These contributions will include the establishment, enhancement and the on- going management costs. 		
Policy NH/7: Ancient Woodlands and Veteran Trees	Planning permission will be refused for development resulting in the loss or deterioration of ancient woodland (as shown on the Policies Map) or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss.		
	 Development proposals affecting ancient woodland or veteran trees will be expected to mitigate any adverse impacts, and to contribute to the woodland's or veteran tree's management and further enhancement via planning conditions or planning obligations. 		

Appendix C

Desk Study Information





Site boundary

Special Areas of Conservation

Ramsar

2.5 5 km



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Drawing Title	International Statutory Designations	Scale Refer to scale Rev -
Client	BDW Cambridgeshire	Drawn RG Checked JW





Site boundary

3km buffer

Sites of Special Scientific Interest

Local Nature Reserves

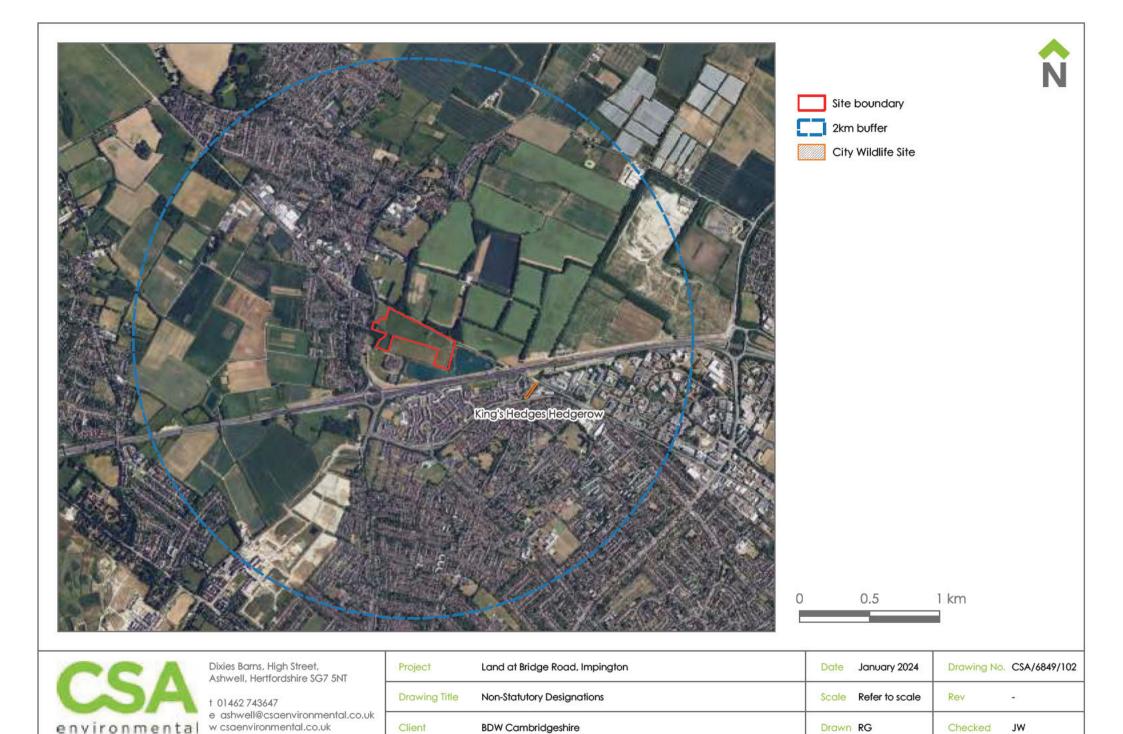
2 km

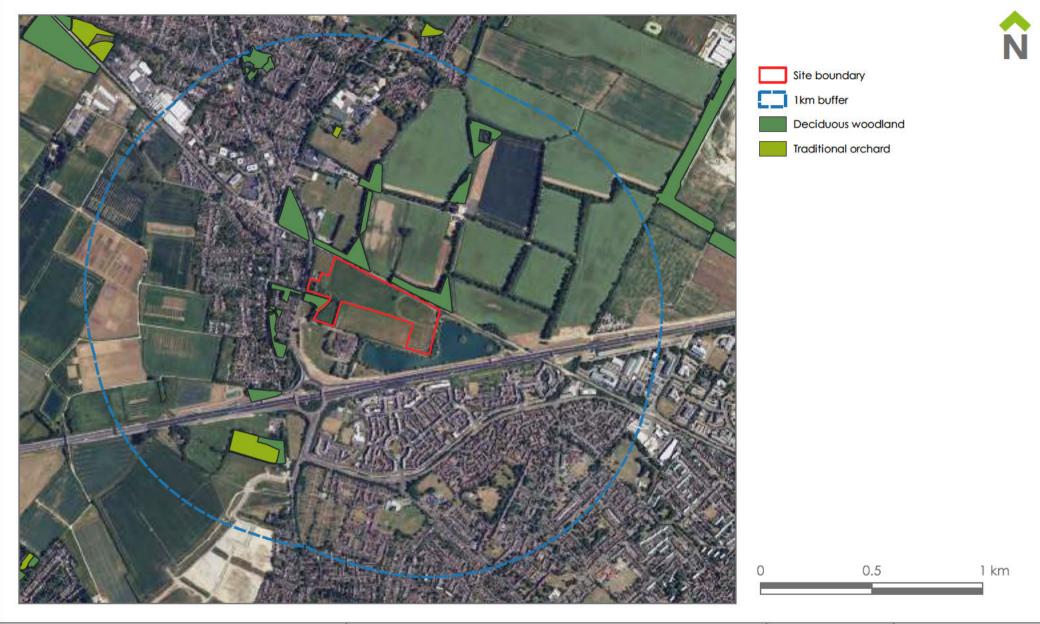


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Drawing Title	National/Local Statutory Designations	Scale Refer to scale	Rev -
Client	BDW Cambridgeshire	Drawn RG	Checked JW



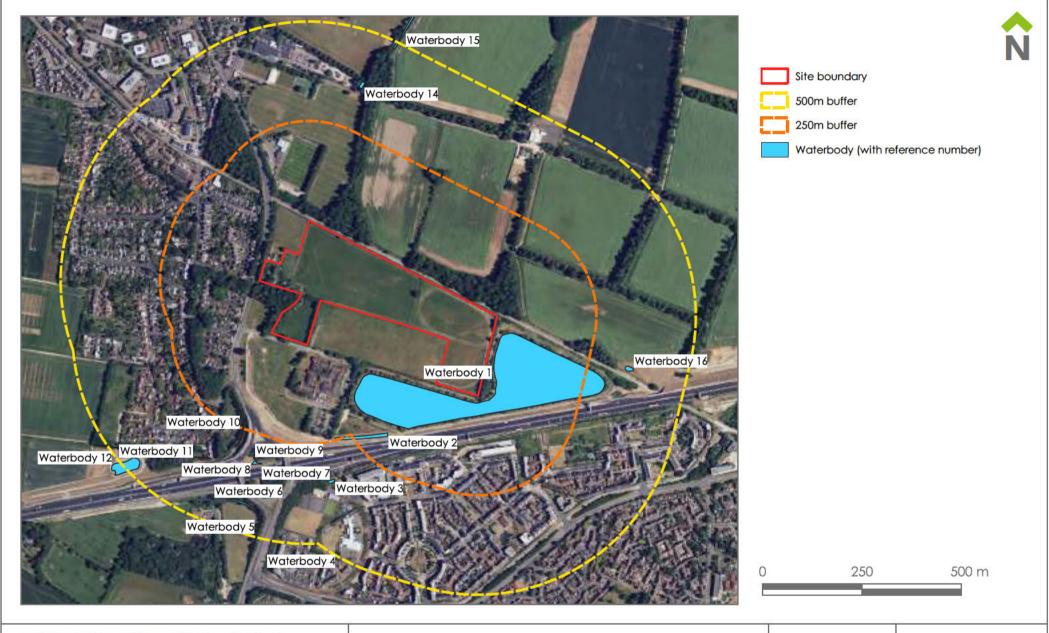




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Project	Land at Bridge Road, Impington	Date January 2024	Drawing No. CSA/6849/103
Drawing Title	Priority Habitats	Scale Refer to scale	Rev -
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Project	Land at Bridge Road, Impington	Date January 2024	Drawing No. CSA/6849/101
Drawing Title	Waterbody Plan	Scale Refer to scale	Rev -
Client	BDW Cambridgeshire	Drawn RG	Checked JW

Appendix D

Habitats and Flora Species List







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