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The Cambourne to Cambridge Order

Cambridgeshire County Council

Transport and Works Act 1992

Transport and Works (Inquiries Procedure) Rules 2004

Inquiry into:

THE CAMBOURNE TO CAMBRIDGE ORDER

PROOF OF EVIDENCE

of

Ian Ellis BSc (Hons), MRes, MCIEEM

of WSP

On behalf of Cambridgeshire County Council

31st July 2025

Planning Inspectorate Reference: DPVE0535/25/1

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1. INTRODUCTION

Qualifications and Experience

1.1.1 My name is Ian Ellis. I am a Technical Director in the Nature Services Team at WSP. I hold a Masters in Research from the University of York and a BSc (Honours) in Zoology from the University of Newcastle-upon-Tyne. I am a full Member of the Chartered Institute of Ecology and Environmental Management.

1.1.2 I have over 25 years' experience in private sector consultancy work on ecological matters. This has included the oversight of the EIAs for multiple large infrastructure projects in many sectors including renewables, highways, residential and nuclear. I have been the lead author of a substantial number of Environmental Statement chapters in addition to Habitat Regulations Assessment (HRA) reports. I have provided expert witness evidence at several previous Issue Specific Hearings and public inquiries.

1.1.3 In my current role at WSP I lead the ornithology team which includes oversight of 35 specialists. I am leading ecology and / or ornithology aspects of several ongoing large infrastructure projects including HyNet CO2 Pipeline, Cambridge Eastern Access and Nuclear Waste Services (NWS).

Scope of Evidence

1.1.4 The scope of my evidence is in relation to the approach and findings of the EIA for the Scheme as reported in the ES in respect to ecological matters. The evidence focuses on the likely significant effects predicted and adherence to EIA/biodiversity legislation and standards. Specifically, Matter 4c (and the Inspectors' main consideration (v)) detailed in the Statement of Matters [CD25-01] is covered in respect to the effect of the Scheme on biodiversity, habitats and wildlife including Coton Orchard County Wildlife Site (as summarised in Table 1.1 below).

1.1.5 Evidence pertaining to bats and Habitat Regulations Assessment is not covered in this Proof of Evidence and is fully detailed in the Proof of Evidence provided by Paola Reason [**CD26-01-APP-W12-1**].

1.1.6 Evidence pertaining to veteran trees and other arboricultural matters is not covered in this Proof of Evidence and is fully detailed in the Proof of Evidence provided by Chris Allder [**CD26-01-APP-W4-1**].

Table 1.1: Coverage of Matter 4c of the Statement of Matters [CD25-01]

Statement of Matters [CD25-01] Reference	Statement of Matters text	Coverage through my Proof of Evidence	Coverage through Proofs of Evidence of Others
4c	The effect of the scheme on the environment, including biodiversity, habitats, and wildlife, with particular reference to the Coton Orchard and Coton Orchard County Wildlife Site.	I will describe how the ES has reported the effect of the Scheme on biodiversity and wildlife including Coton Orchard and Coton Orchard CWS (excluding bats and veteran trees).	How the ES has reported effects on the environment are provided in the in the Proof of Evidence of Andy Saunders [**CD26-01-APP-W3-1].** How the ES has reported specific details in relation to veteran trees at Coton Orchard which is covered in the Proof of Evidence of Chris Allder [**CD26-01-APP-W4-1**]and bats which are covered in the Proof of Evidence of Paola Reason [**CD26-01-APP-W12-1**].

1.1.7 In addition to covering the ES findings in respect to biodiversity matters, my Proof of Evidence also covers certain representations that have been made in relation to this topic. This is explained in detail in Section 7 and summarised in Section 1.3 below.

Summary of Evidence

1.1.8 The purpose of my evidence is to consider whether the EIA, in respect of ecological matters, has been carried out in accordance with the relevant regulations and standards and that due process has been followed.

1.1.9 I will also consider whether the necessary consultation has taken place and how potential adverse ecological effects will be mitigated. I will describe the method used for ecological assessment including the adoption of mitigation.

1.1.10 In Section 2 of my Proof of Evidence I provide an overview of the main ecological issues relevant to the Scheme and the area it crosses. Section 3 gives details of key stakeholder engagement with respect to ecological matters that took place with both statutory and non-statutory consultees.

1.1.11 Section 4 provides an overview of the relevant ecological background including legislation and policy, assessment methodology and baseline conditions for Important Ecological Features.

1.1.12 Section 5 sets out the impacts and effects on ecology as determined in the EIA and outlines the mitigation measures that will be adopted, and which have been assumed within the design and construction methods for our assessment that will ensure that significant effects are avoided as far as practicable. The Section also describes any significant ecological effects that are considered likely despite mitigation.

1.1.13 Section 6 deals with objections and representations made relevant to my Proof of Evidence. I address specific matters raised with respect to both statutory and non-statutory parties.

2. MAIN ISSUES FOR THE INSPECTOR RELEVANT TO MY EVIDENCE

1.1.14 The main issues in respect to ecological matters as outlined in this Proof of Evidence involve the following:

- Construction phase impacts on non-statutory designated sites, notably Coton Orchard CWS;
- Construction Phase impacts on Habitats of Principal Importance;
- Construction phase impacts on protected and/or notable species namely Water Vole, birds, invertebrates and reptiles;
- Operational Phase impacts from water-borne pollution from road run off on aquatic habitats and the species they support; and
- Operational phase impacts from traffic collision and road mortality.

3. KEY STAKEHOLDER ENGAGEMENT

Engagement to Date with Natural England

1.1.15 Natural England responded to the scoping consultation carried out for the Scheme in March 2022 (Appendix A). Natural England set out required general principles for EIA under Schedule 4 of the Town and Country Panning (Environmental Impact Assessment) Regulations 2017[1], the National Planning Policy Framework (NPPF) and guidelines developed by the Chartered Institute of Ecology and Environmental Management (CIEEM). They note that the scheme is '*within or may impact' Eversden and Wimpole Woods Special Area of Conservation (SAC). Further to the SAC, Natural England noted four national designated sites within 10km of the Scheme and note from the provided EIA Scoping Report that eleven non-statutory nature conservation sites are located within 1km of the Scheme*.'

1.1.16 Natural England details in Appendix A that the ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). They further note that '*the area likely to be affected by the development should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and, where necessary, licensed, consultants*.'

1.1.17 Representations and objections relating to the Scheme are detailed in Section 5 of this Proof of Evidence. It is however noted here that representations from Natural England again solely related to bats.

[1] To deliver the Scheme, the Applicant, is applying to the Secretary of State for an order under the Transport and Works Act 1992 (TWA) and a Planning Direction under Section 90(2A) of the Town and Country Planning Act 1990 (TCPA).

4. BACKGROUND

Overview

1.1.18 Detailed information about effects on biodiversity associated with the Scheme and a description of the likely significant effects of the proposals is provided in ES Technical Report 5: Ecological Impact Assessment [EcIA; **CD1-10.01**], which is supported by a series of Technical Report Appendices [Technical Report Appendices **CD1-11.05 TR5.01 – TR5.18**].

Legislation and Policy

1.1.19 Legislation that relates to biodiversity is listed below. These are also detailed in Technical Report 5 of the ES **(CD1-11.05**, Page 4-5, Section 2.1]:

- The Environment Act 2021 [**CD 5-14**];
- Conservation of Habitats and Species Regulations 2017 (as amended) [**CD 5-21**];
- Wildlife and Countryside Act 1981 [**CD 5-06**];
- The Natural Environment and Rural Communities Act 2006 ("NERC"); and
- The Protection of Badgers Act 1992 [**CD 5-10**].

1.1.20 Technical Report 5 [**CD1-11.05**] is informed by The National Planning Policy Framework (NPPF) which sets out policy on biodiversity, including protected sites and species to which local planning authorities (LPAs) must have regard. Furthermore, the EcIA outlines the appropriate local policies relevant to the scheme namely the Cambridge Local Plan [**CD6-01** where policies 69-71 relate to biodiversity] and South Cambridge Local Plan [**CD6-02** where policies NH/4-7 relate to biodiversity]. South Cambridgeshire District Council have produced the South Cambridgeshire Biodiversity Supplementary Planning Document (2022) [**CD7-12]**, which provides detail on how policies will be implemented to ensure that biodiversity is adequately protected and enhanced throughout the development process

Study Areas and Best Practice

1.1.21 Technical Report 5 of the ES [**CD1-1.05, Page 18, Section 4.6**] provides an overview of the spatial extent at which important ecological features could be affected by it in terms of its physical impacts, construction requirements and operational characteristics.

1.1.22 Guidance on ecological assessments [**CD25-33**] recommends that all important ecological features that occur within a zone of influence for a scheme are investigated. Best practice therefore dictates that areas were defined based on the defined zone of influence for each ecological feature:

- Statutory designated sites - 2km from the Scheme boundary (excluding those sites designated for bats);
- Barn owl – 1.5km from the Scheme centre line;
- Habitats, notable or invasive plants – within the Scheme's draft Order Limits and key habitat areas within 250m;
- Hedgerows – those deemed to be directly impacted by the Scheme;

- Birds - within and up to 250m from the Scheme's draft Order Limits;
- Great Crested Newt - within and up to 250m from the Scheme's draft Order Limits;
- Invertebrates – within the Scheme's draft Order Limits;
- Reptiles – within the Scheme's draft Order Limits; and
- Badger, Water Vole and Otter - within and up to 250m from the Scheme's draft Order Limits.

1.1.23 Appropriate survey results from the defined zone of influence were further supported by a desk study which involved obtaining data from within 2km of the Scheme's draft Order Limits.

Assessment Methodology

1.1.24 The methodological approach followed in Technical Report 5 [**CD1-11.05**] followed the guidance provided by CIEEM [**CD25-33**]. In accordance with- this guidance, the assessment applied relevant baseline information, through specific surveys and a desk study, to predict the effects of the Scheme on Important Ecological Features. Important Ecological Features were determined on a geographical scale:

- International (within Europe);
- National (relating to the UK, specifically England);
- County (Cambridgeshire); and
- Local (features that are of importance at a local level such as District).

1.1.25 As outlined in Paragraph 5.8 of the CIEEM guidance [**CD25-33**], impacts on Important Ecological Features that are unlikely to be significant were scoped out.

1.1.26 The geographical scale of importance on designated sites was reflected by their designation at a statutory and non-statutory level. For example, sites designated under the National Sites Network (i.e. Special Protection Areas, Special Areas of Conservation) and Ramsar Sites were considered of international importance while Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs) were considered to be of national importance.

1.1.27 The geographical scale of importance for habitats and species was assigned with reference to any designations or policy provisions that apply. Habitats of Principal Importance (HPI) for example are considered of particular importance to the conservation of biodiversity in England (through Section 41 of the NERC Act). However, as outlined in Technical Report 5 [**CD 1-11.05, page 16, paragraph 4.2.4]** not all HPI should be considered to be nationally important.

1.1.28 The determination of importance of protected or notable species followed the same approach as applied to sites and habitats. For example, Great Crested Newt are recognised as a priority species for nature conservation at an international level, by way of its identification as a protected species under the Habitats Regulations. Very large populations that make up an appreciable proportion of the European population might rightly be identified as of 'International Importance'. Smaller populations that are not exceptional in a given locality and do not contribute particularly to the maintenance of wider populations would be of lesser importance.

1.1.29 A significant effect was defined as an effect that could have an impact upon the structure, form, function and conservation status of a designated site, or species

population where these are defined as Important Ecological Features. In line with CIEEM [**CD25-33; page 31 paragraph 4.7**), the relative importance of ecological features was assessed against a geographic frame of reference. This is standard practice for ecological assessment and explained further in the Environmental Statement [**CD1-11.05, page 15, section 4.2**].

1.1.30 Where effects require mitigation; the mitigation hierarchy was adopted. That is: preference is first given to avoiding effects, then reducing remaining effects, before applying targeted mitigation where necessary. Where residual effects remain after application of targeted mitigation measures, compensation is considered.

1.1.31 The Approach applied in Technical Report 5 differs to that found in the ES [**CD1-10-1 Page 18**] in applying the CIEEM guidance [**CD25-33**].Table TR5-4-1 [**CD1-11.05, page 17**] provides an effective translation of terminology between the two approaches.

Baseline

DESIGNATED SITES

1.1.32 Eversden and Wimpole Woods, located approximately 6.5km south of the Scheme, are together internationally designated as a Special Area of Conservation (SAC) due to the summer maternity roost of Barbastelle Bats that they support. This site is fully assessed in the Statement to Inform Habitat Regulations Assessment [**CD1-11.05 TR5.11**] and subject to focus in the bats Proof of Evidence provided by Paola Reason [**CD26-01-APP-W12-1**].

1.1.33 Madingley Wood is a SSSI abutting the A1303 Madingley Road, approximately 260m north and uphill of the Scheme. The importance of this and similar more distant habitats for bats, including Barbastelle Bat, is recognised in Technical Report 5 [**CD 1-11.05]**.

1.1.34 Other statutorily sites in addition to Madingley Woods SSSI in proximity to the Scheme comprise Caldecote Meadows SSSI, 1.6km south and Hardwick Wood SSSI, 1.7km south).

1.1.35 A further 12 non-statutory sites are located within 1km of the Scheme, three of which are located within the draft Order Limits, namely Coton Orchard and the Coton Path Hedgerow County Wildlife Sites, and the Scrub east of the M11 verge City Wildlife Site) while Bin Brook City Wildlife Site is located 45m of the point where the Scheme joins Grange Road).

HABITATS

1.1.36 The habitats present within the Scheme boundary are summarised in Section 5.3 of Technical Report 5 [**CD 1-11.0, page 28**]. Most of the open land crossed by the Scheme is noted to be arable farmland, including the footprint of the travel hub. This is considered to be of little importance for biodiversity compared to the County and City Wildlife Sites noted above.

1.1.37 The following habitat types within the Scheme boundary are considered Important Ecological Features. This is due to their status as Habitats of Principal Importance under Section 41 of the NERC Act and/or because they meet CWS Selection criteria for Cambridgeshire [**CD25-32**].

- Hedgerows;
- Lowland mixed deciduous woodland; and
- Traditional orchard.

Hedgerow (Priority Habitat)

1.1.38 There are a total of 29 distinct hedgerows to be present within the Scheme boundary. This includes the Coton Path Hedgerow CWS in the east of the Scheme, which is designated due to the presence of two nationally scarce plant species [**Technical Report 5, CD 1-11.05, page 30, paragraph 5.3.13]**.

1.1.39 The other hedgerows were assessed against CWS selection criteria [**CD25-32**] as outlined Of the 29 hedgerows within the Scheme boundary, a single hedgerow met the CWS selection criteria [**Technical Report 5 CD 1-11.05, page 30,** paragraph 5.3.14].

Lowland Mixed Deciduous Woodland

1.1.40 A total of 1.82ha of lowland mixed deciduous woodland is located within the Scheme boundary [**Technical Report 5, CD1-11.05, page 31, paragraph 5.3.18**]. Again, this habitat was assessed against the CWS selection criteria. None met the criteria, and none were listed within the ancient woodland inventory. Lowland mixed deciduous woodland is noted to be HPI under the NERC Act and is considered relatively widespread, but uncommon within Cambridgeshire.

Traditional Orchard

1.1.41 A total 0.42ha of traditional orchard habitat is located within the Scheme boundary [**Technical Report 5 CD1-11.05, page 57, Table TR5-6-2**]**,** reports. This habitat is located within Coton Orchard which contains a mix of hedgerows, lines of trees (including the poplar shelterbelt at the eastern boundary), scrub, traditional orchard and a larger expanse of formerly intensive orchard (referred to as 'other orchard' habitat).

1.1.42 The JNCC document UK Biodiversity Action Plan Priority Habitat Descriptions: Traditional Orchards [**CD25-31**] has been referred to when defining the areas of Coton Orchard that meet the definition. The key defining features of traditional orchard from the habitat description are quoted below.

'Traditional orchards are defined for priority habitat purposes as orchards managed in a low intensity way, in contrast with orchards managed intensively for fruit production by the input of chemicals such as pesticides and inorganic fertilisers, frequent mowing of the orchard floor rather than grazing or cutting for hay, and planting of short-lived, high-density, dwarf or bush fruit trees.'

'Traditional orchards contrast with orchards managed intensively for fruit production, where there are inputs of chemicals such as pesticides and inorganic fertilisers, frequent mowing of the orchard floor rather than grazing or cutting for hay, and planting of short-lived, high density, dwarf or bush fruit trees (stems generally 75cm or less).'

'Traditional Orchards: UK HAP Definition

Traditional orchards are defined, for priority habitat purposes, as groups of fruit and nut trees planted on vigorous rootstocks at low densities in permanent grassland; and managed in a low intensity way.

1.1.43 A large area within the central section of Coton Orchard has been left unmanaged, with the majority of this area succeeding to scrub. These areas are characterised by lines of fruit trees on vigorous rootstocks, interspersed with self-seeded ash trees that create a closed canopy. Due to the presence of the lines of fruit trees, and that these areas have the potential to be restored to orchard, they were classified as traditional orchard.

1.1.44 The areas of Coton Orchard that contain grassland understorey have been managed through an intensive mowing regime. The grassland understorey is therefore classified as 'other neutral grassland' and in areas may be progressing towards 'modified

grassland', which are examples of grasslands that have low species diversity. The grassland areas therefore did not meet the characteristic management practices (hay cutting and grazing) of traditional orchard. Although Coton Orchard does not meet this part of the habitat definition, there was noted to be no recent application of chemicals such as fertilisers and herbicides. On this basis, Coton Orchard is considered likely to meet the definition of 'low intensity' management within the habitat description of traditional orchard.

1.1.45 On the basis that the majority of Coton Orchard is managed in a low intensive way, the 'other orchard habitat' is distinguished from the traditional orchard by the presence of trees on dwarf rootstocks and /or densely planted trees (in contrast to traditional orchard which involves fruit trees on vigorous root stocks that are less densely planted).

1.1.46 The approach taken in Technical Report 5 [**CD 1-11.05]** is considered consistent with the UK Habitat Classification System: Version 2.0, which defines traditional orchard by the following inclusion features:

- The minimum number of trees is 5;
- Nut trees, such as hazel nuts, cobnuts and walnuts;
- Community orchards; and
- Abandoned, overgrown orchards that retain their fruit trees.

1.1.47 The classification system defines other orchards as orchards with a ground cover that is intensively managed (treated with herbicide and heavily mown) - usually Modified grassland, and often with young tree stock and dwarf varieties. The other orchard habitat is further described by the People's Trust for Endangered Species (PTES) as Abandoned or Organic Bush Orchard[2]These sites are formerly intensive sites that have been neglected or managed less intensively and therefore fall outside the definition of traditional orchards, however PTES note that they can still be important for biodiversity.

1.1.48 In the far east of Coton Orchard CWS, former orchard is now succeeded to and is dominated by dense scrub. From historical aerial imagery, the orchard in this area appears to have been cleared before 1999 and has subsequently grown back as mixed scrub habitat. This section of the CWS no longer meets the definition of either tradition orchard or other orchard.

Summary

1.1.49 As areas of the habitat within the Scheme met the criteria for CWS selection, these habitats were assessed as being of County importance.

1.1.50 Of the areas within the Scheme that are not determined to be important ecologically, approximately 51ha (63.1%) comprises cereal crops and developed land; sealed surfaces.

1.1.51 A further 13.09ha (16.2%) of l Scheme construction boundary was found to comprise neutral grassland and modified grassland, which are also common and ubiquitous habitats and again deemed to not represent Important Ecological Features.

[2] Orchard maps - People's Trust for Endangered Species

PROTECTED AND NOTABLE SPECIES

Badger

1.1.52 The results of Badger surveys carried out for the Scheme are outlined in paragraphs 5.4.13 – 5.4.17 of Technical Report 5 [**CD1-11.05**]. This describes a total of 33 setts within the survey area These comprised six main setts, two annex setts, seven subsidiary and 18 outlier setts.

1.1.53 A total of five of these sets are located within the Scheme boundary with those involving one main sett, one subsidiary sett and three outlier setts. A further three sets are located within 30m of the Scheme boundary, including two outlier setts and one subsidiary sett. The populations of Badger associated with the Scheme are not considered to be of any particular ecological importance.

Water Vole

1.1.54 A total of 17 waterbodies are located within the Survey Area which comprise 15 watercourses and two ponds. Water Vole presence was confirmed within Callow Brook and Bin Brook [**Otter and Water Vole Report CD1-11.05 TR5.11, page 25, paragraphs 5.1.2 – 5.1.4**].

1.1.55 Water Vole are not described within the selection criteria for CWS [**CD25-32**]. Given that Water Vole are still relatively widespread in Cambridgeshire and that relatively low levels of evidence of the species within isolated areas of the Scheme were identified, Water Vole were considered to be of Local importance.

Birds

1.1.56 Baseline data was collected for breeding and wintering birds in association with the Scheme, in addition to specific Barn Owl surveys.

1.1.57 Findings from the Barn Owl survey are fully detailed in the Barn Owl Survey Report [**Barn Owl Survey Report, CD1-11.05 TR5.03**] where Section 4 outlines that optimal foraging habitat was found to be limited within the Scheme Boundary and restricted to Coton Orchard. Suboptimal habitat was scattered around the Survey Area with higher prevalence within the east of Cambourne, southwest of the Scheme. No active Barn Owl breeding sites were recorded within the Scheme boundary or within 500m of the Scheme, as such it was considered unlikely that Barn Owl are breeding within the Scheme.

1.1.58 Across surveys undertake for breeding birds, a total 67 species recorded within the survey area defined for breeding birds, 44 species were confirmed breeding and a further three species were probable breeders. Six species were possible breeders and 13 were non-breeding [**Technical Report 5 CD1-11.05, page 47, paragraph 5.4.105**].

1.1.59 A specific breeding bird survey of Coton Orchard was completed in 2024 [**CD1-11.05 TR5.18**]. This report details, in section 4.1, a total of 42 bird species recorded within Coton Orchard. Of these, 31 species of these were considered to be breeding/ holding territory, including:

- Five Species Listed on Section 41 (Priority Species) of the Natural Environment and Rural Communities (NERC) Act, 2006: Skylark, Song Thrush, House Sparrow, Dunnock and Bullfinch;
- Four species on the Birds of Conservation Concern Red List: Skylark, Mistle Thrush, House Sparrow and Greenfinch; and
- Six species on the Birds of Conservation Concern (Amber List: Stock Dove, Wood Pigeon, Song Thrush, Wren, Dunnock and Bullfinch.

1.1.60 None of the species recorded or the assemblage of breeding species meet the CWS selection criteria [**CD23-32**]. As such, it is determined that the overall breeding bird assemblage to be of Local importance that [**Technical Report 5, CD1-11.05, page 48, paragraph 5.4.110]**.

1.1.61 A total of 67 species were recorded on or over the Survey Area during wintering bird surveys [**Wintering Bird Survey Report**, **CD1-11.05 TR5.15, page 16, section 4.2**]. None of the species recorded or the assemblage of wintering species meet the CWS selection criteria [**CD23-32**]. As such the overall wintering bird assemblage is of Local importance [**Technical Report 5 CD1-11.05, page 49, paragraph 5.4.118**].

Reptiles

1.1.62 Surveys for reptiles carried out in 2018, 2021 and 2022 identified no reptiles within the Scheme boundary [**Reptile Survey Report CD 1-11.05 TR5.13, page 9, paragraph 5.1.1**].

1.1.63 Areas outside of the Scheme draft Order Limits were also subject to survey. Low populations of Common Lizard were recorded in 2018 and 2021 at Madingley Rise next to Long Road, approximately 70m outside of the Scheme boundary. Low populations of Grass Snake were recorded in 2018 and 2021 adjacent to the University Sports Ground, approximately 40m outside of the Scheme boundary [**Reptile Survey Report, CD 1.11.05 TR5.13, page 9, paragraph 5.1.3**].

1.1.64 It is considered it unlikely that significant reptile populations are present within the Scheme Order Limits (**Technical Report 5, CD1-11.05, page 49, paragraph 5.4.122**). However, given the close proximity of Grass Snake records and that suitable habitat (such as field margins and aquatic habitat) is present within the Scheme boundary, reptiles are considered of Local importance

Amphibians

1.1.65 A total of 36 water bodies were surveyed for Great Crested Newts. The assessment in applying Habitat Suitability Assessment (HSI) and eDNA, found that Great Crested Newts can be considered likely absent from relevant water bodies. It is therefore concluded that breeding sites for Great Crested Newts are likely absent from the Scheme [**Great Crested Newt Report, CD 1.11.05 TR5.09, page 15, paragraphs 4.1.2 – 4.1.5**].

1.1.66 It is noted however that Great Crested Newts typically utilise suitable habitats such as grassland, scrub, woodland and hedgerows within 250m of their breeding ponds (where a large proportion of a given population is typically found within 50m).They may also be encountered at distances of up to 500m where suitably habitat in the vicinity of breeding ponds is limited or where there is migration across metapopulations [**Technical Report 5 CD1-11.05, page 66, paragraph 6.4.53]**.

1.1.67 Suitable habitat for these species exists within the Scheme boundary in the form of grassland and woodland.

Terrestrial Invertebrates

1.1.68 Surveys of terrestrial invertebrates have identified that the Coton Orchard to likely have an important invertebrate assemblage based on the survey data and invertebrate specimens collected. A total of 14 Nationally Scarce invertebrate species were recorded [**Terrestrial Invertebrates Survey Report, CD1-11.05 TR5.14, page 29, Paragraph 5.1.1**].

1.1.69 It is noted that a further three areas of the Scheme were deemed to meet CWS selection criteria in surveys in 2018 [**Technical Report 5**, **CD1-11.05, page 52, paragraph 5.4.143]**.

1.1.70 Taking into account all of the survey data and range of notable species identified, the assemblage of invertebrates is likely of County importance [**Technical Report 5, CD1-11.05, page 53, paragraph 5.4.151**].

Aquatic Ecology

1.1.71 Technical Report 5 [**CD1-11.05**] and the Aquatic Ecology Report (CD1-11.05 TR 5.01) consider various aquatic features namely macroinvertebrates, White-clawed Crayfish, fish and macrophytes.

1.1.72 Due to the low conservation importance of aquatic macroinvertebrate communities recorded [**Aquatic Ecology Survey Report, CD1-11.05 TR 5.01, page 37, paragraph 5.1.3**] and absence of suitable/high quality habitat, the aquatic macroinvertebrate assemblage is considered to be of Local importance.

1.1.73 The likelihood of a population of White-clawed Crayfish being present in any of the waterbodies within the survey area is considered negligible [**Aquatic Ecology Survey Report, CD1-11.05 TR5.01, page 36, paragraphs 4.4.1 – 4.4.3**]. It is therefore concluded that White-clawed Crayfish are likely absent from the Scheme .

1.1.74 It is assumed on a precautionary basis that the fish present in the waterbodies found within the Scheme boundary are of Local importance. However, it is stated that the fish assemblage is considered unlikely to include protected or rare fish species while there is noted to be poor habitat suitability and limited permeability for fish passage within the affected watercourses/waterbodies [**Technical Report 5, CD1-11.05, page 34, paragraph 5.4.9]**.

1.1.75 It is also deemed that the macrophyte assemblages within the Scheme to be of Local importance due to the absence of protected and notable species, and low habitat suitability in the watercourses/water bodies [**Technical Report 5, CD1-11.05, page 34, paragraph 5.4.12**].

5. POTENTIAL IMPACTS AND EFFECTS

Construction

DESIGNATED SITES

1.1.76 The Statement to Inform Habitat Regulations Assessment [**CD1-11.05 TR5.11**] identifies potential Likely Significant Effects on the Eversden and Wimpole Woods SAC arising from the potential impact pathways upon Barbastelle Bats. This is addressed in the Proof of Evidence provided by Paola Reason [**CD26-01-APP-W12-1**].

1.1.77 there are no predicted impacts upon any other statutory designated sites, including Madingley Wood SSSI, Caldecote Meadows SSSI and Hardwick Wood SSSI as a result of construction or operation of the Scheme As outlined in [**Technical Report 5**, **CD1-11.05, page 54, paragraph 6.2.7**]. Again, potential impacts on bats in relation to Madingley Wood SSSI are addressed in the Proof of Evidence provided by Paola Reason [**CD26-01-APP-W12-1**].

1.1.78 Of the 12 non-statutory sites located within 1km of the Scheme, four are located within the Scheme boundary:

- Coton Orchard CWS;
- Scrubland east of the M11 CiWS;
- Coton Path Hedgerow CWS; and

- Bin Brook CiWS.

1.1.79 It is identified that habitat loss will occur at each of these sites during the construction of the Scheme and an approximation of the extent of this habitat loss, calculated using the indicative construction footprint for the Scheme is provided [**Technical Report 5 CD1-11.05, page 55, paragraph 6.2.9]**.

1.1.80 Coton Orchard CWS is approximately 19.12ha in size and contains a mix of hedgerows, lines of trees, scrub, traditional orchard and a larger expanse of 'other orchard' habitat.

1.1.81 The approximate area of the Coton Orchard CWS that it situated within the Scheme boundary is 2.33ha. It is anticipated that the majority of the habitats within this area will be lost to the Scheme, and any retained habitat has the potential to be impacted by construction activities. Therefore, the area of habitat lost or impacted by the Scheme equates to approximately 12.19% of the CWS area [**Technical Report 5, CD1-11.05, page 56, paragraph 6.2.11**].

1.1.82 Coton Path Hedgerow CWS comprises by definition, a linear habitat feature and is approximately 0.9ha in area (measuring 1,250m in length). It is anticipated that a maximum 0.03ha (50m in length) will be affected by the Scheme during construction. And it is noted that that no rare or notable plant species (for which the CWS is designated) were present within the area that is expected to be lost to the Scheme [**Technical Report 5, CD1-11.05, page 56, paragraph 6.2.12**].

1.1.83 Scrub East of M11 CiWS is approximately 2.3ha in area, however approximately 0.9ha of this wildlife site has already been removed within the West Cambridge development. A further 0.4ha is anticipated to be lost to Scheme.

1.1.84 Bin Brook CiWS is again a linear habitat feature covering approximately 0.8ha in area. Approximately 30m² of this habitat is anticipated to be affected, however this area calculation includes the existing overbridge which has brick stanchions built into the banks of the Brook [**Technical Report 5, CD1-11.05, page 57, paragraph 6.2.14**] notes that. The CiWS is in part designated for the presence of pollard willow trees and due to the presence of Water Vole. No willow pollards are anticipated to be affected by the Scheme.

1.1.85 Due to the extent of habitat loss within each CWS / CiWS it is concluded that in the absence of mitigation, impacts upon non-statutory designated sites would lead to permanent adverse effects that are significant at a County scale [**Technical Report 5, CD1-11.05, page 57, paragraph 6.2.15**].

1.1.86 Following implementation of the mitigation and habitat compensation measures, effects on the following non-statutory designated sites are not however predicted to be significant:

- Scrubland east of the M11 CiWS;
- Coton Path Hedgerow CWS; and
- Bin Brook CiWS.

1.1.87 Mitigation measures specific to designated sites includes minimising habitat loss through design, habitat compensation through landscaping (including hedgerows and scrub and planting along Bin Brook) [**Technical Report 5, CD1-11.05, pages 70 – 71, paragraphs 7.3.1 – 7.3.3**].

1.1.88 A different conclusion is reached with respect to Coton Orchard CWS. Due to the extent of habitat loss, the effect on this non-statutory designated site is considered to

remain significant at a County scale [**Technical Report 5, CD1-11.05, page 83, paragraph 8.1.4]**.

HABITATS

1.1.89 It is predicted that the Scheme and its construction will result in the loss of habitats of several types, including common and widespread habitats, as well those defined as Important Ecological Features such Habitats of Principal Importance (HPIs) [Technical Report 5, **CD1-11.05, page 57, paragraphs 6.3.1 – 6.3.2**]. The affected HPIs comprise 3.9 hectares of broadleaved woodland, 1.82 hectares of lowland mixed deciduous woodland, 0.42 hectares of traditional orchard (within Coton Orchard CWS) and 4,870m of hedgerow. The area of non-traditional orchard habitat affected (not considered an HPI) is 1.32 hectares. Without mitigation the impacts to HPI habitat are defined as significant at a County scale [**Technical Report 5, CD1-11.05, page 58, paragraph 6.3.3**].

1.1.90 Proposed mitigation in relation to habitats includes the evolution of the Scheme alignment and design which has been devised and refined to limit the extent of habitat loss as far as practicable. This includes the location of construction compounds within lower value habitats and that compensatory habitat is included often serving as wider mitigation for potential landscape impacts. Selection of native plant species and habitats of higher ecological value, such as lowland mixed deciduous woodland and scrub will maximise biodiversity benefits [**Technical Report 5, CD1-11.05, page 70, paragraph 7.3.2**].

1.1.91 Woodland planting is located to complement existing woodland outside the draft Order Limits while several attenuation ponds have been designed to maintain aquatic habitat, to benefitting general biodiversity and increasing habitat complexity. For example, attenuation ponds west of the Cambridge University Sports Ground, on the designated open space southwest of the M11 overbridge, and alongside Callow Brook are envisaged to hold water on a permanent basis.

1.1.92 Proposals for habitat compensation within wider landscape plans have been conceived with regard to the impacts on HPIs, primarily regarding hedgerows and woodland. Offsite habitat creation options to achieve at least 10% and up to 20% BNG in line with the GCP aspiration are to be explored. For the purposes of the assessment these measures were not identified as mitigation for the effects of the Scheme as they are not currently secured [**Technical Report 5, CD1-11.05, pages 70 – 72, paragraphs 7.3.1 – 7.10**].

1.1.93 When considering the application of within Scheme mitigation measures, it is considered that there will remain a likely significant effect upon HPI as a result of construction [**Technical Report 5, CD1-11.05, page 83, paragraph 8.1.5**]. It is noted that there will be an increase in the area (5.71ha) of lowland mixed deciduous woodland through the habitat creation within the Scheme, however it is recognised that this habitat will take time to reach maturity and establish into HPI habitat.

1.1.94 When the new trees reach a level of maturity essential to HPI qualification (c10 years), the impact on this habitat will not be considered a significant effect.

1.1.95 The loss of 0.42ha of traditional orchard will not be compensated for within the draft Order Limits as its specific management requirements and the relatively small area concerned would preclude its creation near the busway [**Technical Report 5, CD1-11.05, page 83, paragraph 8.1.6]**. Similarly, a net loss of 1.29km hedgerow will not be mitigated within the draft Order Limits. The loss of both of these habitats represents a significant effect at a County scale [**Technical Report 5, CD1-11.05, page 83, paragraphs 8.1.6 – 8.1.7]**.

1.1.96 In summary, in the short -medium term significant effects on lowland mixed deciduous woodland, traditional orchard and hedgerows remain. In the longer term there are

expected to be no significant impacts to woodland. As noted above, these habitat impacts could be compensated for through the aspiration of habitat creation offsite. The offsite compensation proposed by the Applicant would be a preferable solution as the habitat could be more effectively managed and has the potential to provide wider ecological benefits.

AQUATIC ECOLOGY

1.1.97 With regard to aquatic macroinvertebrates, fish and macrophytes, adverse effects are considered likely through vegetation clearance and pollution. In the absence of mitigation these are considered to be significant at a Local Scale [**Technical Report 5, CD1-11.05, pages 58-59, paragraphs 6.4.1 – 6.4.13**].

1.1.98 Vegetation removal will however be limited to what is essential and habitat reinstated while pollution controls will significantly reduce the risk to aquatic features. These mitigation measures are concluded appropriate and ensure that there are no residual significant effects on these features [**Technical Report 5, CD1-11.05, page 84, paragraph 8.1.10**].

BADGERS

1.1.99 There are five Badger setts within the draft Order Limits, and a further three within 30m. Without mitigation an adverse effect on Badgers is considered likely through sett loss, and disturbance.

1.1.100 It is considered possible that impacts to setts can be avoided through detailed design [**Technical Report 5, CD1.11-05, page 61, paragraph 6.4.16]**. This will be informed by a pre-construction survey to updated baseline information [**Technical Report 5, CD1-11.05, page 74, paragraph 7.4.8**]. Where impacts upon Badgers and their setts cannot be avoided, a Natural England Badger Mitigation licence may be required. This will enable Badgers to be excluded from active setts to enable construction works to proceed legally [**Technical Report 5, page 74, CD1-11.05, paragraph 7.4.10**].

1.1.101 With mitigation measures in place, significant effects on Badgers, are unlikely and considered to be not significant [**Technical Report 5, CD1-11.05, page 84, paragraph 8.1.11**].

WATER VOLE

1.1.102 Excavation works are proposed within the Scheme boundary adjacent to Callow Brook and an outfall will be constructed from the drainage pond adjacent to the proposed park and ride [**Technical Report 5, CD1-11.05, page 64, paragraph 6.4.38**]. Therefore, impacts upon Water Vole burrows have the potential to occur at this location.

1.1.103 At Bin Brook, no burrows were identified within the construction footprint of the new bridge although field signs and burrows were noted to the south where landscaping works are proposed [**Technical Report 5, CD1-11.05, page 64, paragraph 6.4.39**]. Construction activities at Bin Brook may therefore cause damage, to Water Voles and their habitat.

1.1.104 In the absence of mitigation, significant effects are likely – these are considered to be at a Local scale [**Technical Report 5 CD1-11.05, page 64, Paragraph 6.4.40**].

1.1.105 A commitment of ensuring that no works will take place within 5m of either Callow Brook or Bin Brook until updated baseline surveys and application of mitigation measures are completed, as captured in the CoCP [**CD1-26, page 37, paragraph 7.3.16**].

1.1.106 It is further noted that if avoidance of impacts is not possible a Natural England Mitigation licence may be required to displace water voles temporarily to avoid impacts. Mitigation that would be specified in a licence application would include displacement of voles into retained, unaffected and connected habitat. The CoCP [**CD1-26, page 37, paragraph 7.3.17**] specifically notes the requirement for survey seasonal constraints to be incorporated into the construction programme to ensure a licence can be applied for and implemented.

1.1.107 Following implementation of these mitigation measures, impacts on Water Vole during construction of the Scheme would not be significant [**Technical Report 5, CD1-11.05, page 84, paragraph 8.1.14**].

REPTILES

1.1.108 Site and vegetation clearance associated with the construction of the Scheme would result in the removal of a proportion of the suitable reptile habitat within the Scheme - while it is noted that 'low' populations of Common Lizard and Grass Snake are potentially present. Such suitable habitat is confined to the areas in the east of the Scheme.

1.1.109 Loss of this habitat of this habitat would be temporary although disturbance could occur. Therefore, in the absence of mitigation, significant effects are likely – these are considered to be at a Local scale [**Technical Report 5 CD1-11.05, page 66, paragraphs 6.4.50 – 6.4.51**].

1.1.110 Mitigation with respect to reptiles is proposed to involve an Ecological Method Statement that will dictate vegetation clearance in areas that may support reptiles in order to minimise the risk of individual reptiles being killed or injured during site and habitat clearance [**Technical Report 5, CD1-11.05, page 80, paragraph 7.4.43**]. It is also considered that proposals for reinstatement, enhancement and compensatory habitat will provide habitat for reptile populations including an additional wet pond and grassland creation adjacent to the Cambridge University Sports Ground, and grassland and scrub creation throughout the Scheme alignment.

1.1.111 Following implementation of these mitigation measures, impacts on reptiles during construction of the Scheme would not be significant [**Technical Report 5, CD1-11.05, page 85, paragraph 8.1.18**].

AMPHIBIANS

1.1.112 Great Crested Newts have been recorded within two ponds adjacent to the draft Order Limits but not within it. However, vegetation clearance associated with the construction of the Scheme could result in the removal of terrestrial habitat suitable for this species. Therefore, in the absence of mitigation, there is a potential for significant effects; these are considered to be at a Local scale [**Technical Report 5, CD1-11.05, page 67, paragraph 6.4.55**].

1.1.113 It is noted that vegetation clearance will be undertaken under licence from Natural England [**Technical Report 5 CD1-11.05, page 81, paragraph 7.4.46**]. There are two licensing options available to the Scheme;

- District Level Licensing (DLL); and
- A Great Crested Newt Mitigation Licence.

1.1.114 It is assumed that DLL will be the favoured route pursued, which will involve an impact assessment and conservation payment certificate to be applied for with Natural England [**Technical Report 5, CD1-11.05, paragraph 7.4.49**].

1.1.115 Following implementation of these mitigation measures, impacts on Great Crested Newts during construction of the Scheme would not be significant [**Technical Report 5 CD1-11.05, paragraph 8.1.19**].

TERRESTRIAL INVERTEBRATES

1.1.116 Four areas considered for invertebrates comprising Coton Orchard, West Cambridge Canal, the Highfields Complex and Coton Path Hedgerow CWS [**Technical Report 5, CD1-11.05, page 67, paragraph 6.4.58**].

1.1.117 The proportions of habitat loss are estimated to be 2.2ha (of 19.3ha) for Coton Orchard, 0.2ha (of 3.7ha) for West Cambridge Canal, 0.3ha (of 1.6ha) for the Highfields Complex and 0.03ha (of 0.9ha) of Coton Path Hedgerow CWS. Therefore, large proportions of each site fall outside of the Scheme and will be unaffected.

1.1.118 Although the majority of the habitat resource for invertebrates will remain at each area, in the absence of mitigation, significant effects are likely. Coton Orchard has been noted to support a notable diversity of invertebrate species, with 14 that are Nationally Scarce including eight beetles, two bees and four moths. The effect are considered to be at up to a County Scale [**Technical Report 5, CD1-11.05, page 67, paragraph 6.4.63**].

1.1.119 Mitigation for terrestrial invertebrates is focussed on two core elements for invertebrates. Firstly, habitat creation throughout the Scheme that through detailed design can support those found in baseline survey work and secondly, provision of dead wood features through log piles. Species that specialise on standing dead wood such as the Large Fruit Bark Beetle will not be promoted by this mitigation, however. It is considered that the habitat suitable for this species will still be widespread in Coton Orchard however and so allowing the species to persist [**Technical Report 5**, **CD1-11.05, pages 81-82, paragraphs 7.4.52 – 7.4.53**]

1.1.120 Following the consideration of this mitigation, significant effects on terrestrial invertebrates are likely to remain in the short – medium term. These are considered to be at a Local Scale. In the longer term, the maturing habitat compensation would lead to a conclusion of no significant effects [**Technical Report 5, CD1-11.05, page 85, paragraph 8.1.20**].

BIRDS

1.1.121 As no nest sites of Barn Owl were located during baseline surveys and foraging habitat loss will be limited, it is concluded that no mitigation is required and there are no likely significant construction effects [**Technical Report 5, CD1-11.05, page 65, paragraph 6.4.42**].

1.1.122 For the wider breeding and wintering bird community, vegetation clearance would result in a proportional loss of suitable habitats within the draft Order Limits. Suitable habitat for birds includes trees, arable land, woodland, grassland, scrub and hedgerows with some loss being permanent (i.e. the built footprint of the Scheme) while others will be temporary. Removal and disturbance of habitats would reduce the availability of habitat used by a range of bird species including some species of conservation concern.

1.1.123 Therefore, in the absence of mitigation, significant effects are likely – these are considered to be up to a Local scale [**Technical Report 5, CD1-11.05, page 66, paragraph 6.4.47**].

1.1.124 To mitigate impacts on breeding birds all suitable areas of habitat to be retained will be protected through fencing during the construction period. To ensure compliance with

the Wildlife and Countryside Act, all vegetation clearance will take place outside of the breeding period (March – August) where practicable. Should it be necessary to remove habitats suitable for breeding birds during the nesting season, these will be subject to a pre-clearance check by an ornithologist [**Technical Report, CD1-11.05, paragraph 7.4.39**].

1.1.125 Reinstated and compensatory habitat will support breeding and wintering birds including core habitats such as woodland, hedgerows, scrub, orchard and grassland.

1.1.126 The mitigation proposed is anticipated to prevent any impacts through direct loss of breeding birds. Impacts from habitat loss are however predicted to remain in the short and medium term and are considered to be at a Local scale. Once compensatory habitat has matured, there are considered to be no long-term significant impacts on breeding and wintering birds [**Technical Report 5, CD1-11.05, page 79, paragraph 8.1.16**].

Operation

DESIGNATED SITES

1.1.127 There are no anticipated impacts upon these designated sites during the operation of the Scheme [**Technical Report 5, CD1-11.05, page 57, paragraph 6.2.16**].

HABITATS

1.1.128 There are no anticipated impacts upon habitats during the operation of the Scheme [**Technical Report 5, CD1-11.05, page 58, paragraph 6.3.4**].

AQUATIC ECOLOGY

1.1.129 When the Scheme is operational, increased surface water run-off entering Bin Brook and Callow Brook has the potential to increase levels of suspended sediment and pollutants within the watercourses. This could have an adverse effect on the aquatic macroinvertebrate assemblage within the watercourses. Likewise, for fish, pollutants and fine sediment can cause direct injury (e.g. gill irritation) or mortality, and cause habitat loss or degradation [**Technical Report 5, CD1-11.05, page 59, paragraphs 6.4.2 and 6.4.6**]. The unmitigated impacts on the aquatic macroinvertebrate, fish assemblages during the operation of the Scheme is therefore considered likely to lead to a permanent adverse effect.

1.1.130 There are no anticipated impacts and no likely significant effects upon macrophytes from the operation of the Scheme [**Technical Report 5, CD1-11.05, page 60, paragraph 6.4.13**].

1.1.131 The proposed drainage strategy will utilise sustainable drainage systems components to manage the surface run-off entering the watercourses, ensuring that water quality treatment and pollution control requirements are met. This mitigation will reduce effects on both macroinvertebrates and fish [**Technical Report 5, CD1-11.05, page 73, paragraphs 7.4.4 – 7.4.5**].

1.1.132 Following implementation of mitigation measures, operation impacts on fish, aquatic macroinvertebrates are not predicted to be significant [**Technical Report 5, CD1-11.05, page 84, paragraph 8.1.10**].

BADGER

1.1.133 Badgers could potentially be impacted during the operation of the Scheme through road traffic collisions. Such events are considered to be a particular risk where the Scheme intersects regularly used pathways, foraging areas and Badger territories.

This would result in a permanent adverse effect [**Technical Report 5, CD1-11.05, page 61, paragraph 6.4.18**].

1.1.134 Areas of the Scheme that require mitigation will be determined at detailed design stage. However, core design measures to reduce the risk of vehicle collisions will include the application of a combination of badger proof fencing and underpasses [**Technical Report 5, CD1-11.05, page 75, paragraphs 7.4.13 – 7.4.14**]. Underpasses will allow Badgers to safely pass under the Scheme.

1.1.135 Following implementation of these mitigation measures, it is considered that operation effects on Badgers can be avoided or suitably mitigated throughout the operation of the Scheme [**Technical Report 5, CD1-11.05, page 83, paragraph 8.1.11**].

WATER VOLE

1.1.136 The Scheme design includes a clear span bridge across Bin Brook and no culverts will be installed. In addition, no new culverts will be constructed on the Callow Brook. Therefore, the operation of the Scheme will not impact Water Vole populations [**Technical Report 5, CD1-11.05, page 64, paragraph 6.4.41**].

BIRDS

1.1.137 Barn Owl are another species that is susceptible to road traffic collisions. If the Scheme was to separate foraging grounds or fragment a breeding territory, then that risk is increased. However, there are no Barn Owl nest sites were located during surveys and foraging habitat suitability was found to be limited. On this basis, there are considered to be no anticipated impacts on Barn Owl during the Schemes operation [**Technical Report 5, CD1-11.05, page 65, paragraph 6.4.43**].

1.1.138 Likewise, it is also concluded that the operation of the Scheme will not result in any significant effects on other bird species [**Technical Report 5, CD1-11.05, page 66, paragraph 6.4.48**].

REPTILES

1.1.139 There are no anticipated impacts and no significant effects on reptiles from the operation of the Scheme [**Technical Report 5, CD1-11.05, page 66, paragraph 6.4.52**].

AMPHIBIANS

1.1.140 There are no anticipated impacts and no significant effects on amphibians from the operation of the Scheme [**Technical Report 5, CD1-11.05, paragraph 6.4.56**].

TERRESTRIAL INVERTEBRATES

1.1.141 There are no anticipated impacts and no significant effects on terrestrial invertebrates from the operation of the Scheme [**Technical Report 5, CD1-11.05, page 67, paragraph 6.4.64**].

Biodiversity Net Gain

1.1.142 The grant of planning permission for the Scheme will not be subject to the statutory condition in paragraph 13(2) of Schedule 7A to the Town and Country Planning Act 1990. The reason for this is that the relevant provisions of the Environment Act (which insert Schedule 7A into the TCPA 1990) have not been brought into force for cases such as the present where planning permission is deemed to be granted pursuant to section 90 TCPA 1990: see the transitional provisions in regulation 2 of the Environment Act 2021 (Commencement No.8 and Transitional Provisions) Regulations 2024.

1.1.143 Nevertheless, the Applicant is committed to achieving no less than 10% BNG. This is in line with (amongst other matters) the Greater Cambridge Shared Planning Biodiversity Supplementary Planning Document and the Doubling Nature Vision, adopted by South Cambridgeshire Council. To that end the Applicant has proposed an appropriate planning condition to secure this outcome (Planning Condition 15).

1.1.144 A biodiversity statement has been provided with the application, alongside a preliminary BNG assessment [**CD1-11.05 TR5.07**] that compares the existing baseline biodiversity value with the post-development biodiversity value. The post-development value is based on the existing landscape design, that will go through further development during the detailed design process. This preliminary assessment results in a net gain of 4.73% for area habitats and -15.15% loss for linear hedgerow habitats.

1.1.145 Irreplaceable habitats are present within the Order Limits, which includes six veteran trees that are classified in accordance with the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024. Three of these trees will be retained through the implementation of a mitigation and compensation strategy that has been developed.

1.1.146 Loss or deterioration of these veteran trees will be avoided, as explained by Mr Allder in his evidence. In any event, mitigation and compensation measures for the remaining three trees has been devised and will be agreed as bespoke compensation measures in line with the requirements of the Biodiversity Gain Requirements and specifically with Regulation 3 of The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 [**ES Addendum CD1-10.06**].

1.1.147 There will be opportunities to increase the onsite delivery of biodiversity value through the detailed design of the Scheme. It is also considered that offsite compensation measures will be a step in achieving support the wider ambition of BNG. The Statutory Biodiversity Metric will be used to ensure that the area and type of habitat to be created or enhanced will be sufficient to compensate for those habitats that are impacted by the Scheme, and to support the delivering of additional habitat in line with the overall BNG target. This means the development will result in more or better-quality natural habitat than there was before development.

1.1.148 Compensation of orchard habitat for example, could be made elsewhere within the Order Limits or, with the landowner's agreement, in other parts of Coton Orchard. GCP has an extensive programme of works and elements of BNG may be provided in this wider portfolio. In addition, Cambridgeshire County Council has designated land at Lower Valley Farm to the south of Fulbourn which has significant potential for biodiversity uplift and is within the Cambridge Nature Network. Lower Vallery Farm is registered with Natural England as an approved habitat bank.

Conclusion

1.1.149 Following the application of mitigation measures, significant adverse effects on important ecological features are ruled out with the exception of:

- Non-statutory Designated Site (Coton Orchard CWS) - Likely significant effects through direct habitat loss are considered to remain at a County scale.

- Habitats - Likely significant effects through direct habitat loss are considered to remain at a County scale in the short/medium term. Offsite habitat creation is proposed to compensate for the loss of HPI habitats (traditional orchard and hedgerows

- Terrestrial invertebrates - Likely significant effects through direct habitat loss are considered to remain at in the short/medium term. However, in the long term, once compensatory habitats have established it is considered that the effects of habitat loss will not be significant.

1.1.150 The Applicant has committed to opportunities to increase onsite value for biodiversity and Planning Condition 15 commits the use of the Statutory Biodiversity Metric to ensure appropriate compensation. Habitat creation through the Scheme that aims to achieve over 10% and up to 20% net gain that will contribute to the Cambridge Nature Network.

6. REPRESENTATIONS MADE RELEVANT TO MY EVIDENCE

1.1.151 A number of representations and objection have been made with respect to impacts on biodiversity. These include the following overarching key points:

- Impacts to Coton Orchard CWS;
- Impacts to protected / notable species and habitats; and
- Mitigation requirements for biodiversity

1.1.152 With respect to Coton Orchard CWS, this Site has been subject to extensive assessment as to the habitats and species it supports. The value of the CWS has been fully recognised in its importance at a Cambridgeshire level. As a CWS, it is considered that significant effects remain even after application of mitigation measures. It is noted that impacts could be compensated for through habitat creation offsite. The Biodiversity Metric will be used to ensure that the area and type of habitat to be created will be sufficient to compensate for those HPIs that are lost to the Scheme. There is a commitment to habitats being replaced in proportionately larger amounts, due to the difficulty of creating certain habitat types and the time that it will take for them to establish / mature [**ES Main Report**, **CD1-10, page 112, paragraphs 8.3.18 – 8.3.19**].

1.1.153 Protected and notable species (as determined to be Important Ecological Features in Technical Report 5 [**CD1-11.05**] have been subject to extensive survey and assessment and initial mitigation proposals. A full breakdown of mitigation commitments is given in the Mitigation Register for the Scheme (**CD1-10.02**) and outlined in the Code of Construction Practice (COCP) [**CD1-26**].

1.1.154 Mitigation proposals will develop through detailed design and the appointed Principal Contractor will prepare a detailed Local Environmental Management Plan (LEMP) as detailed in Planning Condition 9. This will also be informed by appropriate updated surveys of ecological features.

1.1.155 Specific points made from representations and objections from key interested parties are outlined below.

Statutory Objectors

1.1.156 The only statutory consultee objection in relation to my Proof of Evidence is Natural England [**REP11]**, However, Natural England's objections relate entirely to bats and these points are addressed in the Proof of Evidence from Paola Reason [**CD26-01-APP-W12-1**].

Other Relevant (non-statutory) Objectors

1.1.157 This section of my Proof of Evidence is in relation to other non-statutory objectors where impacts to ecology / biodiversity has been raised.

REPRESENTATION MADE BY CAMBRIDGE CITY COUNCIL AND SOUTH CAMBRIDGESHIRE DISTRICT COUNCIL (REP09)

1.1.158 This part of my Proof of Evidence is concerned with the representation made jointly by Cambridge City Council (CCC) and South Cambridgeshire District Council (SCDC) [**REP09**]. Three points made are considered relevant:

- Delivery of Biodiversity Net Gain;
- Additional mitigation requirements; and
- Absence of River Condition Surveys

1.1.159 South Cambridgeshire District Council [**CD23-16-1**] and Cambridge City Council [**CD23-16-2**] have also submitted Statements of Case for the Scheme.

1.1.160 Cambridge City Councils case is in relation to two issues, Barbastelle Bats and Biodiversity Net Gain. Barbastelle Bats are noted again to be addressed in the Proof of Evidence provided by Paola Reason [**CD26-01-APP-W12-1**] while Biodiversity Net Gain is addressed below.

1.1.161 South Cambridgeshire District Councils Case summarises policy on County Wildlife Sites and follows with points on Coton Orchard CWS and veteran trees, Barbastelle Bats and Biodiversity Net Gain. The points regarding Coton Orchard and Biodiversity Net Gain are addressed below.

Biodiversity Net Gain – Point Made

1.1.162 CCC and SCDC in their Representation (REP09) state that '*The project's current assessment indicates it will not achieve a 10% Biodiversity Net Gain (BNG) target within the order limits. The applicant should engage further with stakeholders to develop off-site solutions that align with BNG objectives, ensuring adequate legal agreements are in place to secure long-term habitat management*.'

1.1.163 Furthermore, in their Statement of Case [**CD23-16-1**], while SCDC recognise that the Scheme is not legally required to provide the 'mandatory' 10% BNG (**paragraph 5.17**), they make a series of additional points.

1.1.164 SCDC state that *'any habitat creation within the order limits must be agreed upon with the relevant authority or landowner responsible for its long-term management. For example, if habitat is established within the Local Highways Authority estate, they must commit to 30 years of maintenance to ensure the habitat's effectiveness and compliance with BNG objectives*' (**paragraph 5.19**). They further note that if '*BNG were to be secured through planning conditions alone, it would fall to the Secretary of State to monitor the Scheme for 30 years, which is unlikely to be a practical or effective approach'* (Paragraph 5.20). SCDC note that subject to these measures being implemented the proposal would be in accordance with Policies NH/4 and NH/5 (**paragraph 5.21**).

Biodiversity Net Gain – My Response

1.1.165 As acknowledged in the Statement of Case by SCDC [**CD23-16-1, Paragraph 5.17**] BNG is not legally required for this TWAO application. SCDC further note the commitment of the Applicant to delivering 20% net gain across all its projects. The ES for the Scheme [**CD1-11.05, Paragraph 5.7.26**] notes that habitat creation through the Scheme that aims to achieve over 10% and up to 20% net gain that will contribute to the Cambridge Nature Network.

1.1.166 A preliminary BNG assessment [**CD1-11.05 TR5.07**] has been completed for the Scheme and assesses whether the Scheme provides BNG. It also informs the potential requirements for any offsite habitat creation.

1.1.167 The BNG assessment will be updated once the detailed design of the Scheme has been completed. The habitat creation measures (both onsite and offsite) that will be committed to for the minimum 30-year management term will then be detailed within a Biodiversity Gain Plan. This plan will be submitted to discharge the Planning Condition 15.

Additional Mitigation Requirements – Point Made

1.1.168 CCC and SCDC note in REP09 that '*additional issues for consideration include ensuring badger underpasses align with engineering requirements, defining the management of new and existing water bodies, and incorporating operational lighting impacts on invertebrates into mitigation plans*.'

Additional Mitigation Requirements – My Response

1.1.169 The specification for Badger underpasses will be made at detailed design stage although it is standard that alignment with engineering requirements will be a key consideration. Likewise, management of new waterbodies will be a focus within detailed design.

1.1.170 The potential impacts of operational lighting on important ecological features is assessed in Technical Report 5 [**CD1-11.05**]. Areas of the Scheme requiring lighting are anticipated to be limited to junctions along the Scheme that interact with existing road networks, such as Long Road and St Neots Road. Any impact in these areas where street lighting is already present is considered unlikely to occur. Nevertheless, a Lighting Strategy has been produced which includes measures to ensure that operational lighting design will minimise impacts from lighting habitats that are currently unlit during construction. These measures are outlined within the CoCP [**CD1-26, page 12, section 3.8**].

Absence of River Condition Surveys – Point Made

1.1.171 CCC and SCDC state in REP09 that 'the *absence of river condition surveys for potential bridge crossings, such as Bin Brook, should be addressed to confirm that habitat impacts remain minimal.*'

Absence of River Condition Surveys – My Response

1.1.172 The Aquatic Ecology Survey Report [**CD1-11.05 TR5.01**] provides a detailed overview of survey methodology and results on watercourses with respect to the important ecological features they support. River Condition Assessment is not a requirement to inform EcIA assessment. Sufficient information from aquatic ecology surveys [as outlined in **CD1-11.05 TR5.01**] is sufficient to inform the assessment of Bin Brook. River Condition Assessment is linked to the BNG requirement and is used to inform the watercourse module of the Statutory. River condition assessments will therefore be undertaken to inform the BNG assessment as part of the detailed design of the Scheme and production of the BNG Plan secured through Planning Condition 15. This will follow the watercourse module of the Statutory Metric guidance.

1.1.173 Impacts to the Bin Brook are described within Technical Report 5 [**CD1-11.05, page 57, sections 6.3 and 6.4**] and appropriate mitigation for habitat loss from the bridge construction is outlined. Nevertheless, the existing brick stanchion bridge will be decommissioned and replaced with a clear span bridge as part of the Scheme. This will reduce the encroachment into the Bin Brook. Mitigation is secured under the Code of Construction Practice [**CD1-26**] and captured in the Mitigation Register for the Scheme [**CD1-10.02**].

Coton Orchard CWS – Point Made

1.1.174 SCDC make a series of points in their Statement of Case regarding Coton Orchard CWS [**CD23-16-1, paragraphs 5.5 – 5.9**]. SCDC note key outcomes from Technical Report 5 [**CD1-11.05**] and the Arboriculture Report [**CD1-11.14.01**] in that the Scheme will result in the removal of a veteran tree (classified as 'irreplaceable' under the NPPF) and that even when considering mitigation a predicted significant effect remains.

1.1.175 SCDC note that additional mitigation proposed includes the creation of compensatory habitats which will include traditional orchard amongst other habitat types. SCDC present revised conditions in respect of this matter [CD23-16-1, Table 1].

Coton Orchard CWS – My response

1.1.176 As clarified in the ES Addendum and explained in the evidence of Mr Allder, following an updated survey in March 2025, it was concluded that 12 of the surveyed, original Bramley apple trees should be deemed to have veteran status. Six trees are within the draft Order Limits, three of which can be retained. The remaining three trees would need to be relocated to a receptor site. [**ES Addendum, CD1-10.06, page 18, paragraph 2.5**].

1.1.177 SCDC accurately summarise the outcomes of the assessment made in Technical Report 5 [**CD1-11.05**] and the aspirations of the Applicant to ensure that the CWS is maintained, and key habitats are compensated for and enhanced across the wider landscape.

REPRESENTATION MADE BY THE NATIONAL TRUST (OBJ250)

1.1.178 This part of my Proof of Evidence is concerned with the objection made by the National Trust [**CD2-OBJ250**]. The following point made is considered relevant:

- Fragmentation of Coton Orchard

Coton Orchard – Point Made

1.1.179 The National Trust state [**paragraph 31 of CD2-OBJ250**], that '*the primary issue from the perspective of the National Trust lies not in the sheer number of apple trees lost, but rather in the fragmentation of the orchard caused by the busway, which disrupts its overall integrity of Coton Orchard. Therefore, the focus should be on establishing a new orchard character instead of merely replacing a specific quantity of trees and the National Trust are looking for suitable proposals which address this. This dimension is considered to be crucial for the Scheme to be considered acceptable to the National Trust, in respect of the impact that the Scheme could have upon the covenanted land.'*

1.1.180 Furthermore, in paragraph 32 the National Trust consider that the extent of the Orchard to be lost should serve as the '*foundation for determining necessary replacements'*. They consider that open access land '*is not suitable for relocation due to the presence of an embankment and attenuation pond. It is the National Trust's view 'that it would be more beneficial to plant the replacement open space as woodland to effectively screen and integrate the busway and attenuation ponds within the surrounding context. Further consideration should be given to the proposed and required tree mitigation in an alternative appropriate open space*'.

Coton Orchard - My Response

1.1.181 Technical Report 5 [**CD1-11.05. e.g. pages 83-84, paragraphs 8.1.5 – 8.1.18**] provides an assessment of impacts on Coton Orchard where it is concluded that there is a likely significant effect at a County scale. The design of the Scheme has been

refined where possible to minimise the loss of important habitats such as lowland mixed deciduous woodland, traditional orchard, hedgerows and trees. Construction compounds are located within lower value habitats such as neutral grassland and arable cropland, as these areas will be easiest to reinstate and have a lower ecological impact [**CD1- 11.05, page 70, paragraph 7.3.1**].

1.1.182 The issue regarding new orchard planting is addressed in the draft Veteran Tree Mitigation (including Compensation) Strategy [**CD1-11.14.03 Appendix 14.2**]. This discusses options for orchard restoration and new planting where it is noted that planting could be made elsewhere within the Order Limits or, with the landowner's agreement, in other parts of Coton Orchard reflecting the existing grid pattern.

OBJECTION AND STATEMENT OF CASE MADE BY THE WOODLAND TRUST (OBJ294)

1.1.183 This part of my Proof of Evidence is concerned with the objection [**CD2-OBJ- 294**] representation made by The Woodland Trust. The objection [**CD2- OBJ -294**] deals entirely with issues involving arboriculture and in particular veteran trees at Coton Orchard. Responses to these points are provided in the Proof of Evidence by Chris Allder [**CD26-01-APP-W4-1**].

1.1.184 Similarly, the Statement of Case made by The Woodland Trust [**CD23-20 OBJ-294**] outlines arboricultural points although points relate to 'exceptional biodiversity value' of veteran trees in Coton Orchard. These are discussed below.

Coton Orchard – Point Made

1.1.185 In Paragraph 1.6 part iv of their Statement of Case [**CD23-20**], The Woodland Trust argue that ecological impacts of the Scheme are not accurately assessed as '*Coton Orchard is a rare example of traditional orchard in excellent ecological condition. It is a rare priority habitat and the veteran apple trees form a coherent ecological and arboricultural unit that both individually and collectively provision exceptional biodiversity, cultural and historic value*'.

1.1.186 The Woodland Trust state that orchards represent '*remnant agricultural systems are mosaic habitats which support a wide range of biodiversity. Traditional orchards are UK BAP priority habitats. Coton Orchard also hosts 'Nationally Scarce' invertebrate species associated with this habitat*' [**CD23-20, paragraph 6.1**].

1.1.187 The Woodland Trust rely on the Terrestrial Invertebrate Survey Report CD1-11.05 TR5.14) to '*demonstrate the exceptional biodiversity value provisioned by the deadwood features of the veteran apple trees. Within the scope of the invertebrate survey, several survey techniques demonstrate that high quality invertebrate assemblages are associated with the veteran apple trees at Coton Orchard including 8 Nationally Scarce species*' [**CD-23-20, paragraph 6.2**].

Coton Orchard - My Response

1.1.188 Technical Report 5 [**CD1-11.05**] provides an assessment of impacts on Coton Orchard where it is concluded that there is a likely significant effect at a County scale. While the individual trees have not been assessed independently, Important Ecological Features were identified within the orchard including notably the CWS as a whole, HPI habitat and species assemblages such as terrestrial invertebrates.

1.1.189 The value of the Orchard to invertebrates has been accepted as being of County importance with deadwood specialist species being highlighted as part of this evaluation [**CD1-11.05 TR5.14, page 29, paragraph 5.1.1** and **CD1-11.05, page 53, paragraph 5.4.151**]. Mitigation proposals for terrestrial invertebrates including key species present in the Orchard are considered appropriate [**Technical Report 5, CD1-11.05, pages 81-82, paragraphs 7.4.52 -7.4.55**].

1.1.190 In summary, the ecological assessment presented in Technical Report 5 [**CD1-11.05**] has followed the appropriate guidance and identified important ecological features including the Orchard itself and the species it supports. It is noted that the ES Addendum [**CD1-10.06**] provides additional information based on an arboricultural survey carried out in March 2025. Following the updated survey, it was concluded that 12 of the surveyed, original Bramley apple trees should be deemed to have veteran status. Six trees are within the draft Order Limits, three of which can be retained. The remaining three trees would need to be relocated to a receptor site. [**CD1-10.06, page 18, section 2.5**]. It is further noted that there is considerable scope for positive orchard restoration management (as outlined in **CD1-11.14.03 Appendix 14.2 – Draft Veteran Tree Mitigation Strategy**].

REPRESENTATION MADE BY THE WILDLIFE TRUST FOR BEDFORDSHIRE, CAMBRIDGESHIRE AND NORTHAMPTONSHIRE (OBJ46)

1.1.191 This part of my Proof of Evidence is concerned with the objection [**OBJ46**] representation made by The Wildlife Trust. The objection includes the following issues raised:

- Significant impacts to four Wildlife Sites;
- Avoidance of irreplaceable biodiversity loss;
- Principles of Biodiversity Net Gain;
- Impacts on birds; and
- Impacts on Great Crested Newts

County Wildlife Sites – Point Made

1.1.192 The Wildlife Trust state that '*the scheme significantly impacts four Wildlife Sites, including Coton Orchard, where the scheme will damage habitats and result in the loss of ancient trees and critical biodiversity*.'

County Wildlife Sites – My Response

1.1.193 Of the 12 non-statutory sites located within 1km of the Scheme, four are located within the Scheme boundary (Coton Orchard CWS, Scrubland east of the M11 CiWS, Coton Path Hedgerow CWS and Bin Brook CiWS).

1.1.194 It has been made clear that habitat loss will occur at each of the non-statutory designated sites as a result site clearance and vegetation clearance during construction of the Scheme [see for example **Technical Report 5, CD1-11.05, page 55, paragraphs 6.2.9 – 6.2.15**].

1.1.195 Calculations of the proportion of habitat likely to be lost to the Scheme have been provided. For Coton Orchard this comprises 2.33 ha which represents over 12% of the CWS area. While this is not considered to have effects on the overall function of the CWS, a residual significant effect (defined as at a County scale) is concluded.

1.1.196 With respect to the remaining three non-statutory sites, a different conclusion is reached based on the proportion of habitat loss and insights into the location of works within the sites. For Coton Path Hedgerow CWS a maximum of just 0.03ha is predicted to be lost to the Scheme (representing a 50m stretch of hedgerow). It was noted during baseline surveys that this area of the CWS did not support any rare or notable flora [**Technical Report 5**, **CD1-11.05, page 56, paragraph 6.2.12**]. Considering that compensatory planting will include hedgerow habitat and that loss of the CWS is proportionally negligible, my view is that it would not be significantly impacted.

1.1.197 The Scrub East of M11 CiWS covers an area of approximately.3ha in area. It is noted that 0.9ha of this wildlife site has already been removed within the West Cambridge development [**Technical Report 5, CD1-11.05, page 57, paragraph 6.2.13**]. A further 0.4ha is anticipated to be lost to Scheme. Considering that compensatory planting will include scrub habitat and that loss of the CWS is proportionally negligible, my view is again that it would not be significantly impacted.

1.1.198 The final site is Bin Brook CiWS which is a linear habitat feature approximately 0.8ha in area. A small area of approximately 30m² of this habitat is anticipated to be affected. Even this small proportion is considered to be an overestimate of the habitat impacted as it includes the existing overbridge which has brick stanchions built into the banks of the brook [**Technical Report 5, CD1-11.05, page 57, paragraph 6.2.14**].

1.1.199 The CiWS designated for the presence of pollard willow trees and due to the presence of Water Vole. No willow pollards are anticipated to be affected by the Scheme. While no Water Vole burrows were noted to be present within the impacted area, burrows and foraging signs were noted to the south and therefor is the potential for impacts on this species. No works will be undertaken at Bin Brook until an updated survey for Water Voles has taken place. This survey will inform mitigation actions; should burrows be present likely to be impacted a licence will be applied for from Natural England. The method statement within the licence application will detail appropriate methodologies involving displacement of voles from the affected area [**Technical Report 5, CD1-11.05, page 79, paragraphs 7.4.37 – 7.4.38**].

1.1.200 Considering the mitigation proposed for Water Voles and the limited proportional loss of the Brook and the commitment to compensatory planting along Bin Brook it is again my view that the CiWS would not be significantly impacted.

Avoidance of irreplaceable biodiversity loss – Point Made

1.1.201 The Wildlife Trust state that '*the scheme inadequately applies the mitigation hierarchy, fails to avoid irreplaceable biodiversity loss'*

Avoidance of irreplaceable biodiversity loss – My Response

1.1.202 It is noted that due to the nature of the Scheme, it is not feasible to avoid all impacts upon non-statutory designated sites entirely. Habitat loss will be minimised by only clearing habitat that is absolutely necessary in order to construct the Scheme. The Scheme construction boundary has been refined to the ensure that these impacts are minimised. It should also be noted that the design and route of the Scheme has been specifically designed throughout the lifecycle of the project to avoid impacting on high value habitats within the wider landscape. This has led to the current Scheme alignment and location being brought forward.

1.1.203 Habitat compensation has been provided throughout landscaping proposal and within the Scheme boundary where feasible. This includes compensatory planting of hedgerows and scrub, as well as planting along Bin Brook.

Principles of Biodiversity Net Gain – Point Made

1.1.204 The Wildlife Trust state that the Scheme '*does not meet key principles for achieving Biodiversity Net Gain (BNG), including transparency, measurable contributions, and long-term legacy*.'

Principles of Biodiversity Net Gain – My Response

1.1.205 The Scheme is not subject to a mandatory BNG requirement as highlighted by SCDC [**CD23-16-1**]. Nevertheless, the Applicant is committed to achieving no less than 10% BNG.

1.1.206 A biodiversity statement has been provided with the application, alongside a preliminary BNG assessment [**CD1-11.05 TR5.07**] that compares the existing baseline biodiversity value with the post-development biodiversity value. The post-development value is based on the existing landscape design, that will go through further development during the detailed design process. This preliminary assessment results in a net gain of 4.73% for area habitats and -15.15% loss for linear hedgerow habitats.

1.1.207 Although there will be opportunities to increase the onsite delivery of biodiversity value through the detailed design of the Scheme, offsite compensation will likely be a step in achieving the wider ambition of BNG. The Statutory Biodiversity Metric will be used to ensure that the area and type of habitat to be created will be sufficient to compensate for those HPIs that are impacted by the Scheme. This is secured though Planning Condition 15.

1.1.208 Considering the information provided to date on BNG and the commitment to BNG through detailed design, it is considered that key principles have been followed. The Applicant has also committed to a long-term legacy to ensure created habitats reach target condition. Management and monitoring of these habitats will also be detailed with an outline of funding mechanisms to ensure support over a minimum of 30 years [**Technical Report 5, CD1-11.05, page 71, paragraph 7.3.6**].

Impacts on Birds, Great Crested Newts – Point Made

1.1.209 The Wildlife Trust state that 'The *impacts on priority species such … red and amber-listed birds, and Great Crested Newts are not adequately assessed*'.

Impacts on Birds, Great Crested Newts – My Response

1.1.210 Surveys for breeding birds were undertaken across the wider Scheme [**CD11.05 TR5.08**] and then specifically at Coton Orchard in 2024 [**CD1-11.05 TR5.18**] Of the 67 bird species recorded in the wider Scheme defined for breeding birds, 44 species were confirmed breeding and a further three species were probable breeders. Six species were possible breeders and 13 were non-breeding.

1.1.211 A total of 41 bird species were recorded at Coton Orchard n 2024 of which 31 species were considered to be breeding, including red and amber list species listed on Birds of Conservation Concern.

1.1.212 The populations of birds recorded were assessed against CWS criteria [**CD18-04**] with none being met [**Technical Report 5, CD1-11.05, page 48, paragraphs 5.4.109 – 5.4.110**].

1.1.213 No active Barn Owl breeding sites were recorded within the Scheme boundary or within 500m of the Scheme, as such it was considered unlikely that Barn Owl are breeding within the Scheme or immediate surrounding area. Foraging resources are considered to be limited within the Scheme to small, isolated areas of the Scheme [**CD1-11.05 TR5.03, page 21, paragraphs 5.1.2 – 5.1.3**].

1.1.214 A total of 67 species were recorded on or over the Survey Area during wintering bird surveys [**CD1-11.05 TR5.15**] Again none of the species recorded or the assemblage of wintering species meet the CWS selection criteria [**CD18-04**]. Technical Report 5 therefore appropriately determines bird assemblages to be of Local importance [**Technical Report 5**, **CD11.05, page 48, paragraph 5.4.110**].

1.1.215 Considering the mitigation proposed to ensure that birds would not be impacted while breeding [**Technical Report 5, CD1-11.05, page 79, paragraph 7.4.39**] and that proposals for reinstatement and compensatory habitat will benefit breeding and wintering birds, it is my view that they will not be significantly impacted.

1.1.216 Great Crested Newts have been recorded within two ponds adjacent to the draft Order Limits although it is highlighted that terrestrial habitat potentially suitable for this species would be impacted. As set out in the Mitigation Register [**CD1-10.02**] mitigation will be achieved through application to Natural England, either in the form of a European Protected Species (EPS) Licence under The Conservation of Habitats and Species Regulations 2017; or through District Level Licencing (DLL).

1.1.217 The DLL scheme would enable habitat creation measures to be in place that would compensate for impacts upon Great Crested Newt populations during both the construction and operation of the Scheme. If an EPS Licence is opted for, design mitigation measures would need to be secured through the licence.

1.1.218 Considering that appropriate mitigation measures are in place with respect of Great Crested Newts, it is my view that they will not be significantly impacted.

REPRESENTATION MADE BY COTON BUSWAY ACTION GROUP (OBJ143)

1.1.219 This part of my Proof of Evidence is concerned with the objection [**OBJ143**] representation made by Coton Busway Action Group. The objection includes the following issue raised:

- Biodiversity and habitat loss

1.1.220 Coton Busway Action Group have also submitted a Statement of Case [**CD23-08-1**] which raided the following additional issues:

- Destruction of Coton Orchard; and
- Bisection of wildlife corridors and fragmentation of priority habitats

Biodiversity and habitat loss – Point Made

1.1.221 Coton Busway Action Group state that '*the scheme will result in significant biodiversity and habitat loss and significant infrastructure carbon associated with the construction of a new roadway and a motorway bridge on the off-road route*.'

Biodiversity and habitat loss – My Response

1.1.222 It has been evidenced that the Scheme and its construction will result in the loss of habitats of several types, including common and widespread habitats, as well as within non-statutory designated sites and HPIs. The affected HPIs comprise 3.9 hectares of broadleaved woodland, 1.82 hectares of lowland mixed deciduous woodland, 0.42 hectares of traditional orchard and 4,870m of hedgerow.

1.1.223 These aspects have all been subject to extensive assessment within Technical Report 5 [**CD1-11.05**] and where appropriate significant effects have been concluded (specially on habitats and Co ton Orchard CWS).

1.1.224 It is however highlighted that the Scheme alignment and design has been devised and refined to limit the extent of habitat loss as far as practicable. Construction compounds are located within lower value habitats [**ES Main Report**, **CD1-10.01 page 110, paragraph 8.3.12**].

1.1.225 The proposals for reinstatement and compensatory habitat will provide replacement habitat for breeding and wintering birds. The following compensation planting will be provided: new woodland planting throughout the Scheme; new and enhanced hedgerows within the Scheme boundary; and provision of scrub, grassland and new wet ponds within the Scheme boundary [**Technical Report 5**, **CD11.05, page 80, paragraph 7.4.40**]. The management of new landscaped areas within the Scheme will

be detailed within a Landscape and Ecological Management Plan (as secured through Planning Condition 9).

1.1.226 With reference to HPIs, proposals for habitat compensation are focussed on hedgerows and woodland. Wider habitat creation will be provided offsite for HPIs where this is needed to compensate the significant effects reported in Technical Report 5, proposals for which will be developed in detailed design and will be agreed in due course through BNG.

1.1.227 Irreplaceable habitats, notably veteran trees, are present within the Order Limits. The ES Addendum [**CD1-10.06**] concludes that 12 of the surveyed, original Bramley apple trees should be deemed to have veteran status. Six trees are within the draft Order Limits, three of which can be retained. The remaining three trees would need to be relocated to a receptor site [**ES Addendum, CD1-10.06, page 18, paragraph 2.5.3**]. It is further noted that there is considerable scope for positive orchard restoration management [as outlined in **CD1-11.14.03 Appendix 14.2 – Draft Veteran Tree Mitigation Strategy**].

1.1.228 In conclusion, while it has been documented that the Scheme will result in the loss of important ecological features in its constructions, it is my view that such losses have been minimised through the Scheme design, appropriate mitigation has been proposed and where compensation is required mechanisms are in place to ensure that this is robustly secured through detailed design.

Destruction of Coton Orchard,– Point Made

1.1.229 Coton Busway Action Group state that that Coton Orchard is home to a '*rich community of flora and fauna* and the Scheme would '*desecrate the site with the largest and most valuable trees felled and the sites value for wildlife severely reduced*.'

1.1.230 Furthermore, Coton Busway Action Group, state that the Scheme '*cuts directly across that designated Priority Area and severs two wildlife corridors*.'

Destruction of Coton Orchard - My Response

1.1.231 While substantial sections of Coton Orchard are intensively managed or allowed to succeed to dense scrub (see CD1-10.01, Page 103) its value for wildlife is not in debate. The Site has been valued at of County importance for terrestrial invertebrates as well as the habitats in supports within Technical Report 5 [**CD1-11.05**].

1.1.232 Calculations of the proportion of habitat likely to be lost to the Scheme have been provided. For Coton Orchard this comprises 2.33 ha which represents over 12% of the CWS area [**Technical Report 5, CD1-11.05, page 56, paragraph 6.2.11**]. This includes 0.42 ha of traditional orchard habitat [**Technical Report 5, CD1-11.05, page 57, Table TR5-6-2**]. While this is not considered to have effects on the overall function of the CWS, a residual significant effect (defined as at a County scale in **CD1-11.05**) is accepted despite the mitigation proposed.

1.1.233 The Applicant proposes to translocate the veteran trees [**ES Addendum CD1-10.06**]. Proposals for habitat compensation within landscape plans have been conceived with regard HPIs, primarily hedgerows and woodland. Wider habitat creation will be provided offsite for HPIs where this is needed to compensate for a likely significant effect, proposals for which are to be developed during detailed design. There will be a net increase by 5.71ha in the area of lowland mixed deciduous woodland, and although it will take 10 years for the new trees to reach a level of maturity.

1.1.234 The draft Veteran Tree Mitigation (including Compensation) Strategy [**CD1-11.14.03 Appendix 14.2**] discusses options for orchard restoration and new planting where Paragraph 3.6.1 notes that planting could be made elsewhere within the Order Limits or, with the landowner's agreement, in other parts of Coton Orchard.

Bisection of Wildlife Corridors and Fragmentation of Priority Habitats – Point Made

1.1.235 Coton Busway Action Group refer to the Cambridge Nature Network Report prepared by The Wildlife Trust for Bedfordshire, Cambridgeshire and Northamptonshire in 2021. They state that '*The landscape to the west of Cambridge is identified by the report as one of six Priority Areas, based on topography, hydrology and landscape. The 'Boulder Clay Woodlands' sector, together identified as a Priority Area within a strategic plan for a local Nature Network. In line with the UK government's National Planning Policy Framework (2021), this plan includes the protection and further establishment of ecological networks and corridors. These networks and corridors are now recognized as vital to the survival of species, enabling them to forage and breed; without them populations become isolated which in turn renders them more vulnerable to stresses and threats and to reduced genetic diversity…. as can be seen in Maps 2 and 3 on pages 10 and 12 of the Cambridge Nature Network Report – the off-road CtoC busway cuts directly across that designated Priority Area and severs two wildlife corridors.*

1.1.236 In summary, Coton Busway Action Group contend that the Scheme severs two wildlife corridors, which are vital for the survival of species, with the Cambridge Nature Network Report determining their protection

Bisection of Wildlife Corridors and Fragmentation of Priority Habitats – My Response

1.1.237 The Cambridge Nature Network Report [**CD18-17**] ought to 'identify the components of a Nature Network for Cambridge and its hinterland'. As part of this process, which was based on 'field surveys and local knowledge' existing habitat networks were identified as shown in Maps 2 and 3 as identified by Coton Busway Action Group.

1.1.238 Wildlife corridors are shown on each map; however, it is clear that these are indicative and in the region of the Scheme, are coarsely presented as approximate linkages between identified 'core' or 'stepping stone' areas of habitat. It is noted that Coton Orchard was not identified in either category. It is considered that the wildlife corridors detailed in the Cambridge Nature Network Report [**CD18-17**] should not be taken as a defined feature that the Scheme is impacting. It is however recognised that the Nature Network provides overarching evidence to inform a nature recovery strategy. Indeed, the Cambridgeshire and Peterborough Local Nature Recovery Strategy [**CD18-18**] is currently undergoing consultation. The LNRS notes (on page 33) that opportunities should be considered in major infrastructure to improve landscape permeability for wildlife, while not referring to the indicative corridors put forward in the Cambridge Nature Network Report [**CD18-17**].

1.1.239 The Scheme has inserted permeability for wildlife into its design including underpasses and appropriate landscape planting. Underpasses will be determined at detailed design stage and will focus on important ecological features such as Badgers [**Technical Report 5, CD1-10.05, page 75, paragraph 7.4.14**]. Indeed, the ES Main Report [**CD1-10.01, page 78, paragraph 5.7.27**] recognises that the Scheme is located within the Nature Network and that habitat creation to be secured through the Scheme will contribute to proposed recovery areas.

1.1.240 Mitigation for bats in respect to fragmentation and landscape permeability is provided in the Proof of Evidence by Paola Reason [**CD26-01-APP-W12-1**], however it is noted that landscape mitigation features will be incorporated to encourage flight heights to be maintained at a height above 4m. This will include bunds (where necessary) with mature tree planting over them that will be a minimum height of 4m above the made level of the new busway. Once mature, the gap between the canopy heights either side of the new road, will be less than 20m to encourage bats to maintain their flight height over the road.

7. CONCLUSIONS

1.1.241 The CtoC scheme will not result in significant impacts on Important Ecological Features with the exception of:

- Coton Orchard CWS - likely significant effects through direct habitat loss are considered to remain at a County scale.
- Habitats - likely significant effects through direct habitat loss are considered to remain at a County scale in the short/medium term. Offsite habitat creation is proposed to compensate for the loss of HPI habitats (traditional orchard and hedgerows)
- Terrestrial invertebrates - likely significant effects through direct habitat loss are considered to remain at in the short/medium term. However, in the long term, once compensatory habitats have established it is considered that the effects of habitat loss will not be significant.

1.1.242 The Applicant has committed to opportunities to increase onsite value for biodiversity and Planning Condition 15 commits the use of the Statutory Biodiversity Metric to ensure appropriate compensation. Habitat creation through the Scheme that aims to achieve over 10% and up to 20% net gain that will contribute to the Cambridge Nature Network.

8. STATEMENT OF TRUTH

The evidence which I have prepared and provided in this Proof of Evidence is true and is given in accordance with the guidance of my professional institution. I confirm that the opinions expressed are my true and professional opinions.

List of Appendices [separate PDF]

Appendix 1: Natural England Consultation 2022