

Proof of Evidence – Ecology and Arboriculture

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The conclusions and recommendations contained in this document are based upon information gathered by TEP and provided by third parties. Information provided by third parties and referred to herein has not been independently verified by TEP, unless otherwise expressly stated in the document.

Nothing in this report constitutes legal opinion. If legal opinion is required, the advice of a qualified legal professional should be secured.

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1.0 Introduction

Witness and Company Experience

- 1.1 My name is Francis Hesketh. I hold an Honours degree in Ecological Science from Edinburgh University (1983). Since graduating I have gained continuous professional experience in public, voluntary and private sectors of environmental consultancy, both in the UK and overseas and have over 30 years of experience in this field. I am a Chartered Member of the Landscape Institute (Sciences Division), a Member of the Chartered Institute of Ecology and Environmental Management (CIEEM), a Chartered Environmentalist and a Member of the Institute of Chartered Foresters.
- 1.2 I am a founder and director of The Environment Partnership (TEP), a business established in 1997 which employs ecologists, arboriculturists, planners, landscape architects and other environmental professionals. TEP is regularly commissioned by public and private sector clients to provide professional advice on assessment of environmental effects, prepare detailed landscape and ecological designs and support the implementation of developments. Of relevance to this appeal, I note our long-term framework contracts with Homes England, Forestry Commission and Land Trust to provide ecological and arboricultural surveys and associated biodiversity and tree management services.
- 1.3 Under my management, TEP employs forty-five ecologists and fourteen arboriculturists with a range of survey skills, all appropriately licensed to carry out work. TEP also employs around 80 other environmental professionals.
- 1.4 TEP has received several awards recognising the quality of its work on ecological projects including the CIEEM Best Practice Award and several Landscape Institute awards for Sciences and Innovation; in respect of projects for which I was the director. I have led the design and implementation of habitat creation schemes, including establishment of statutory and other publicly accessible nature reserves.
- 1.5 I have represented a number of clients (Local Authorities, Government bodies, academic institutes and private developers) on ecological and arboricultural matters at over 50 public inquiries.
- 1.6 I confirm that this proof of evidence is true and has been prepared and is given in accordance with the guidance of the professional institutions of which I am a member. I further confirm that the opinions expressed in my evidence are my true and professional views.

Summary of Instruction

1.7 In relation to this public inquiry, TEP was commissioned by Homes England in June 2020 to undertake ecological, arboricultural and heritage surveys, to advise on design for biodiversity and tree cover; and prepare ecological, arboricultural and historic environment assessment reports to support the outline planning application. I have visited the appeal site.

Scope of Evidence

- 1.8 I have structured my evidence as follows:
 - Chapter 2 lists the legislation, policy and guidance engaged by the appeal scheme;
 - Chapter 3 provides an overview of the Appeal Site and the ecological and arboricultural baselines. I summarise additional surveys and assessments carried out since the application was submitted, including signposting to evidence in response to assertions made in Bristol City Council's Planning Committee Report that the hedgerows on site are "ancient" and "irreplaceable";
 - Chapter 4 discusses the SNCI status of the Appeal Site;
 - Chapter 5 discusses the Allocation of the Site and its consideration of nature conservation and trees and summarises how the design of the proposed development has considered nature conservation and trees. It demonstrates how the mitigation hierarchy is followed;
 - Chapter 6 details the effect of the Appeal Scheme on trees and hedgerows, including an assessment of effects on the Tree Preservation Order and hedgerows that meet the importance criteria of the Hedgerow Regulations. I summarise tree replacement requirements and what planning conditions might be anticipated;
 - Chapter 7 provides an overview of the Outline Biodiversity Net Gain Assessment (BNGA) for the appeal scheme and summarises on- and offsite requirements. It considers how an offsite scheme might be delivered;
 - Chapter 8 summarises the likely effects of the Appeal Scheme on protected and priority species. I outline mitigation measures, noting if licences may be required and what planning conditions might be anticipated;
 - Chapter 9 demonstrates how the Scheme complies with legislation and policy cited by the Council in their Reasons for Refusal;
 - Chapter 10 addresses the position of third parties, including consultees to the planning application, and objectors, and how the Scheme has responded to them;
 - Chapter 11 provides conclusions and summarises my evidence.

- 1.9 This evidence is supported by Drawings and Appendices:
 - Drawing 1 is a summary of the Arboricultural Implications Assessment for the whole site;
 - Drawing 2 is a Hedgerow Impacts Plan, bringing together evidence from ecological and historic environment surveys;
 - Appendix A is a summary of the surveys and assessments which informed the planning application;
 - Appendix B is a November 2022 update to the desk study and a site walkover, which confirms the baselines presented in the submitted Outline Ecological Impact Assessment (EcIA) remain valid;
 - Appendix C is a revised Outline BNGA which assumes the full original extent of the Brislington Meadows SNCI designation remains in force. Appendix C also updates the Outline EcIA in light of the findings of Appendix B and the revised Outline BNGA;
 - Appendix D presents further research on the origin and history of the site's hedgerows in response to suggestions that the site contains "ancient" hedgerows;
 - Appendix E presents Arboricultural Method Statements and Tree Protection Plans relating to a) the access from Broomhill Road into the core of the site, and b) the proposed cycleway connection to School Road. These are prepared in response to comments from the Council's Tree Officer seeking further details;
 - Appendix F provides details of the tree replacement calculations using the Bristol Tree Replacement Strategy (BTRS);
 - Appendix G catalogues evidence from published documentation produced by Bristol City Council relating to the Site's Allocation in full consideration of the Site's original status as SNCI and in full acknowledgement of the harm to the SNCI and the local network that would result from the allocation;
 - Appendix H is a schedule of the proposed mitigation and compensation measures for ecological features;
 - Appendix I is an analysis of compliance in relation to relevant policy and legislative not specifically cited by the Council in its Reasons for Refusal;
 - Appendix J displays aerial photographs from 1938 and 1946, relevant to consideration of hedgerow and veteran tree matters.
 - Appendix K is a record of communications between me and the Council's Arboricultural witness concerning the presence of veteran trees.
- 1.10 This Proof will focus on ecological and arboricultural matters referenced in the putative Reasons for Refusal and in respect of the alleged impacts of each as a result of the Appeal Scheme. My evidence will therefore deal with Reason for Refusal 1 (harm to biodiversity), Reason for Refusal 2 (the

retention of important trees and hedgerows), Reason for Refusal 3 (loss of irreplaceable habitat). I will also address Reason for Refusal 5 insofar as it relates to ecological mitigation.

- 1.11 As the Committee Report deals with these matters in long and overlapping narratives as Key Issues A, B and C, I respond to relevant Key Issues and RfRs at the end of each chapter of my evidence (where relevant) and then summarise the overall response to each RfR in my conclusions.
- 1.12 I refer to the evidence of colleagues in my Proof where appropriate. Other evidence to be presented by expert witnesses for the Appellant comprises those colleagues in the scheme's planning and design team, as follows:
 - Mr Charles Crawford, Director of Landscape, LDA Design this evidence sets out the design evolution of the masterplan and the layout in response to the Appeal Site's constraints, opportunities and the iterative design process undertaken
 - Mr Paul Connelly, Director of Planning and Regeneration, LDA Design this evidence will deal with planning and policy matters and will address all the Reasons for Refusal in the round.
- 1.13 I will also draw on evidence from my TEP colleagues Amir Bassir, Principal Historic Environment Consultant who investigated the date of hedgerow establishment (Appendix D) and Tom Popplewell, Associate, Arboriculture who has visited the site to consider the late submissions by the Council on veteran trees. A short statement from Mr Popplewell is found at Appendix L. I reserve the right to call on my colleagues to provide rebuttal evidence if the Council or Rule 6 party provide written evidence on these matters.
- 1.14 I recommend the Inspector reads the evidence of Mr Crawford, especially section 4.5, and familiarises herself with the Design Evolution Document (DED)^[1] appended to Mr Crawford's evidence, prior to reading my evidence. These documents provide an illustrated summary of how ecological and arboricultural data has influenced the formulation of the parameters plans and illustrative masterplan.

Summary

- 1.15 My evidence shows that the Proposed Development is sensitively and comprehensively designed in response to the important ecological and arboricultural features of the Site, as set out in the site-specific Allocation Policy (BSA1201). I show how the mitigation hierarchy has been followed.
- 1.16 There will be a net loss of biodiversity and arboricultural value on site, as was anticipated when the site was allocated. Nevertheless, development

¹ Appendix 2 to Charles Crawford's Proof of Evidence

in accordance with the submitted parameter plans will retain and create a green infrastructure framework on Site that would have beneficial ecological and arboricultural value.

- 1.17 Harms to the remaining Brislington Meadows SNCI will be avoided. Harms to protected and priority species will be acceptably minimised and mitigated. Although there will be a reduction in range for some species, provision can be made within the site for habitats for protected and priority species. I describe why the habitats on site should not be regarded as "irreplaceable" in terms of the meaning given to that term by NPPF.
- 1.18 Compensatory and enhancement measures responding to necessary losses of grassland, trees and hedgerows would be delivered on and off site, to ensure long-term net gains for biodiversity and arboriculture, securing 10% Biodiversity Net Gain (BNG) and tree replacement in accordance with national and local policy. During the planning application Homes England has engaged with Bristol City Council ('the Council') seeking an agreement to ensure that contributions for offsite habitat enhancement would be deployed on Council-owned land at Brislington Meadows SNCI and elsewhere in the City, in accordance with the allocation policy.
- 1.19 Paul Connelly will give evidence that the Council has not engaged with Homes England in response, despite such engagement being reasonably expected, even on a without-prejudice basis. However, if the Inspector grants permission, the Council would be expected to act reasonably and enable such habitat creation and enhancement to be made in accordance with allocation policy. Even in the event that the Council does not so engage, Homes England would be able to make adequate arrangements with third party habitat providers. Thus, the Inspector can be assured that net gain in terms of habitats and trees would be delivered on and off site.

2.0 Relevant Legislation, Policy and Guidance

- 2.1 The following legislation, policy and guidance are relevant to, or are said to be relevant to, the consideration of the appeal scheme in terms of ecological and arboricultural effects. Later in my evidence I set out how the proposed development complies with them.
- 2.2 Legislation:
 - The Conservation of Habitats and Species Regulations 2017
 - Wildlife and Countryside Act 1981
 - Natural Environment and Rural Communities Act 2006
 - Environment Act 2021
 - The Hedgerows Regulations 1997
 - The Protection of Badgers Act 1992
- 2.3 National Policy:
 - NPPF 2021, notably paragraphs 131, 174, 179 and 180
- 2.4 Bristol Development Framework Core Strategy (2011):
 - Policy BCS9 Green Infrastructure
- 2.5 Bristol Site Allocation Development Management Policies Plan (2014):
 - Policy SA1 Allocation BSA1201, including references to the 2013 Sustainability Appraisal that provides the evidence base for allocating the site
 - Policy DM15 (Green Infrastructure Provision)
 - Policy DM17 (Development involving existing green infrastructure)
 - Policy DM19 (Development and Nature Conservation)
- 2.6 Other Guidance:
 - Bristol Biodiversity Action Plan (BAP) Habitats of Principal Importance (HPI)
 - Bristol's Ecological Emergency Action Plan

3.0 Survey and Assessment

Ecology

- 3.1 Appendix A summarises the type, method, timing and standard of ecological surveys completed to inform the ecological impact assessment (EcIA). The Outline EcIA is reported at TEP Ref 7507.20.066v6.0^[2]. The scope for ecology surveys was confirmed through review of the pre-application response from the Council (Pre-Planning Application Ref 19/05220/PREAPP^[3]) and subsequent follow up discussions with the Council's Nature Conservation Officer (Pre-Planning Application Ref 20/04579/PREAPP) during the course of 2020. Consultation was documented in the Ecological Desk Study (TEP Ref 7507.20.040v2.0)^[4].
- 3.2 The Council's Nature Conservation Officer's response (dated 23/11/22)^[5], while objecting to the scheme in principle, confirms "the ecological surveys carried out for this application are thorough and paint a good picture of the ecological features of the site". There is therefore no challenge to survey quality and an acceptance of TEP's factual and technical assessments.

Arboriculture

- 3.3 A tree survey in accordance with BS5837:2012 and an Arboricultural Impact Assessment (AIA) informed the planning application (TEP Ref 7507.21.001^[6]).
- 3.4 All individual trees, tree groups and woodlands have been assessed. The field boundary hedgerows are overgrown and have experienced lateral scrub colonisation. They have been assessed as tree groups, rather than as hedgerows.
- 3.5 The survey identified 34 individual trees, 47 groups of trees and 2 woodlands on or within influencing distance of the site. Of these 10 features were categorised as high quality (Category A), 34 were moderate quality (Category B), and 34 were low quality (Category C). All grade A trees can be retained.
- 3.6 TPO1404^[7] applies to the Appeal Site. It includes 14 trees, 6 groups and 1 woodland.

² CD1.21: Brislington Meadows Outline Ecological Assessment (TEP Ref 7507.20.066v6)

³ CD7.1: Pre-Planning Application Ref 19/05220/PREAPP Dated January 2020, refer to Appendix C: Ecology (pages 21-23)

⁴ CD1.21(a): Ecological Technical Appendix A Ecological Desk Study (TEP Ref 7507.20.039v2)

⁵ CD3.12: Nature Conservation Officer Ecology Response to Outline Application 23/11/22

⁶ CD1.19: Brislington Meadows Arboricultural Impact Assessment (TEP Ref 7507.21.001)

⁷ CD8.7: TPO1404 Land at Broom Hill

- 3.7 TEP's survey identified 1 veteran tree (T6) in the southern boundary linear woodland and scrub. It would be retained.
- 3.8 The tree survey was presented to the Council and a site meeting was held on 6th October 2020, with the Council's Tree Officer and planning officer and TEP's Arboricultural and ecological consultants along with representatives from Homes England, engineers Campbell Reith and masterplanners LDA-Design.
- 3.9 A tree survey was carried out in 2020, and was discussed with the Council's Arboricultural Officer on site in October 2020, at the time the Council was preparing to serve TPO1404. At the time, the Officer remarked that TEP's categorisation of high (A) and moderate (B) trees broadly aligned with those being considered for the TPO.
- 3.10 At the Case Management Conference of 14th December 2022, the Council indicated it wished to identify further veteran trees. A final map locating these alleged veterans was provided to me on 6th January 2022, but with no supporting evidence alongside. I expect that the Council's witness will provide more evidence at the date of exchange, but given the late notice of this, I reserve my position on this matter and will address the Council's evidence during the period allowed for rebuttal evidence.

Additional Surveys and Assessments to Inform the Inquiry

3.11 Since submission of the application, the following additional surveys and assessments have been completed. The purpose of these is to a) ensure the inquiry can have confidence in the current baseline, given the passage of time since the application was made to the Council, b) address points raised by consultees and objectors and c) consolidate disparate information into simple sources of reference to assist the inquiry.

Updated Ecology Desk Study and Walkover in November 2022

3.12 This is found at Appendix B. This confirms to the inquiry that the baseline conditions on site have not materially changed since the application was made. The Council ecologist noted recent badger activity, which I address at Chapter 8 of my evidence.

Updated Outline EcIA

3.13 The Council's Statement of Case^[8] now takes the view that the SNCI designation remains in force, at least for the purpose of consideration of mitigation. The Outline EcIA has been updated to reflect this position.

⁸ CD10.2: LPA Statement of Case Appendix 1: Development Control Committee B 7th December 2022 Refer to page 1, Site Description, paragraphs 3 and 4

This is found at Appendix C. This is done without prejudice to the Appellant's principal position on the SNCI designation, which I touch on in Chapter 4 of my evidence and is fully addressed in Mr Paul Connelly's proof of evidence e.g. his paragraphs 5.70 on.

Updated Outline BNG Assessment (BNGA)

- 3.14 This is also provided at Appendix C and has been calculated based on the SNCI remaining in force, again without prejudice to the Appellant's principal position on the matter.
- 3.15 The Outline BNGA^[9] and associated calculator^[10] was submitted with the application, following Biodiversity Metric 3.0^[11]. The report also described how the development would implement biodiversity gain for the scheme, with an assessment against BNG good practice principles. The assessment was made on the understanding that the site was not designated as SNCI.
- 3.16 The technical accuracy of the Outline BNGA was not challenged by the Council as far as I am aware, insofar as it quantifies the existing and proposed habitats and quantifies the on and offsite requirements that would be needed to achieve a 10% net gain. The Nature Conservation Officer's objections in the Committee Report are in relation to an alleged lack of offsite delivery and the extent of impact from the proposals, rather than a challenge to the accuracy of the Outline BNGA.
- 3.17 The Council has now adopted a position that the former SNCI boundary should apply for the purposes of identifying an appropriate level of mitigation, although development management policies re SNCI's are to be suspended in light of the allocation. The former SNCI boundary covers most of the Appeal Site.
- 3.18 In order to assist the Inquiry, TEP has updated the metric and associated report on the basis that the former SNCI boundary continues to apply.
- 3.19 The principal change is that all existing habitats within the former SNCI, including hedgerows, are now assigned a "high" strategic significance, where previously they were assigned "medium" significance, by virtue of being adjacent the retained SNCI but not within it. The headline results table from the metric is reproduced below, although the reader is referred to Appendix C for a full explanation of the trading rules and offsite requirements, in addition to adjustments made to the calculator's headline results to adopt a more precautionary approach regards the post-

⁹ CD1.22: Outline Biodiversity Net Gain Assessment (TEP Ref 7507.20.070v4)

¹⁰ CD2.1: Outline Biodiversity Net Gain Metric 3.0 calculator

¹¹ CD11.6(f): Natural England Biodiversity Metric 3.0 Technical Supplement and CD11.6(g) Natural England Biodiversity Metric 3.0 User Guide. Natural England.

development scores applied. The update does not trigger a change in the "distinctiveness" scores applied to existing or proposed habitats.

Brislington Meadows Return to results meau			
	Habitat units	61.66	
On-site baseline	Hedgerow units	4.62	
	River units	0.00	
	Habitat units	44.85	
On-site post-intervention	Hedgerow units	10.34	
(Including habitat retention, creation & enhancement)	River units	0.00	
	Habitat units	-27.27%	
On-site net % change	Hedgerow units	123.59%	
(Including habitat retention, creation & enhancement)	River units	0.00%	
	Habitat units	0.00	
Off-site baseline	Hedgerow units	0.00	
	River units	0.00	
	Habitat units	0.00	
Off-site post-intervention	Hedgerow units	0.00	
(Including habitat retention, creation & enhancement)	River units	0.00	
	Habitat units	-16.82	
Total net unit change	Hedgerow units	5.71	
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00	
	Habitat units	-27.27%	
Total on-site net % change plus off-site surplus	Hedgerow units	123.59%	
(including all on-site & off-site habitat retention, creation & enhancement)	River units	0.00%	
Trading rules Satisfied?	No - Check Tr	ading Summary	

- 3.20 The summary shows that development in accordance with the parameters plan would result in a net reduction of 16.82 habitat area units. The more precautionary approach would result in a net reduction of -16.88 habitat units (refer to Appendix C). It should also be noted that no habitats of "high" and "very high" distinctiveness would be lost (as none occur within the site), with the net loss only being of habitats in the "low" and "medium" bands of distinctiveness. This latter loss is what triggers the provisional red alert about trading rules.
- 3.21 The update results in a small increase in the total number of habitat area units required offsite to achieve 10% BNG and to satisfy trading rules. All required hedgerow units can still be delivered on site.
- 3.22 In summary, to achieve 10% BNG and to satisfy trading rules, the following is required offsite:
 - Total: 23.05 habitat units; comprising habitats of medium or greater distinctiveness in the following broad types:
 - Grassland minimum 14.61 units
 - Heathland and shrub minimum 8.37 units
 - Woodland and forest minimum of 0.07 units

3.23 In Chapter 7 of my proof, I address the concerns of the Nature Conservation Officer and the Rule 6 party about the application of BNG policy and procedure to the Appeal Scheme.

Research into Hedgerow History

- 3.24 This is provided at Appendix D.
- 3.25 The Historic Environment Report (HER)^[12] made an assessment that the hedgerows were probably Enclosure Period hedgerows based on 1840s tithe mapping and a 1789 Enclosure Act map relating to the wider area. The HER advised further investigations into older mapping that might be available at Bristol or Somerset Record Centres would be helpful to confirm this, but noted that access to Records Centres was at the time prevented due to Covid restrictions.
- 3.26 Following receipt of comments from the Council's Tree Officer and representations from Bristol Tree Forum that the hedges on site might be "ancient", pre-dating the period of Enclosure Acts, TEP's Heritage team carried out further archival research into this matter. The findings from the geophysical survey and an assessment of LiDAR maps have also informed the further research.
- 3.27 The report at Appendix D demonstrates the hedges are 18th century enclosure-period hedges. Their presence on a 1791 estate tenancy map, with labels indicating specific field sizes (Two Acre Field, Three Acre Field etc) suggest they were enclosure hedges. The rectilinear layout of fields, the simple hedgerow species composition and the absence of any ridge and furrow patterns in fields or ditch and bank planting systems; all lend weight to the theory that these hedges were planted in the 18th century, albeit as a result of a private enclosure agreement, rather than a Parliamentary enclosure. To date, I have not seen evidence from the Council that provides a contrary picture, or that supports the contention that the hedgerows are "ancient".
- 3.28 This means that, contrary to the views of the Council's Tree Officer expressed in the Planning Committee Report under Key Issue B, there is no evidence that the hedges on site formed part of an earlier field pattern that was subsumed into an enclosure field pattern. Thus, TEP's heritage specialists do not consider the term "ancient" should be applied to hedgerows of the Appeal Site. The research at Appendix D also provides evidence that there are no artificially formed banks on which the hedgerows sit, a matter that is relevant to the ecological valuation of hedges which I discuss at Chapter 6.

¹² CD1.18(a): Brislington Meadows Historic Environment Desk-based Assessment (TEP Ref 7507.022.002 v1.2)

Arboricultural Method Statement for Points of Access

3.29 In response to the Council's Tree Officer's request^[13] for more information on tree protection arrangements for the two main access points where tree loss is inevitable, an Arboricultural Method Statement and Tree Protection Plan has been prepared. This is provided at Appendix E.

Bristol Tree Replacement Calculations

- 3.30 The number of replacement trees required where trees are lost as part of a development is set out by the Bristol Tree Replacement Standard (BTRS) in the Planning Obligations Supplementary Planning Document[14]. It provides guidance on required replacement numbers on the basis of the stem diameters of trees to be lost, as well as what financial contribution will be required where tree replacements cannot be delivered on site.
- 3.31 A survey in September 2022 counted and measured the individual trees that are likely to be lost from within tree groups and woodland, based on the illustrative masterplan. This information is used to calculate the required number of replacements.
- 3.32 The number of trees presumed lost has been recorded in Appendix F (spreadsheet reference: x7507.43.001) and comprises 162 individual trees. As described at Appendix F, where individual trees were below 15cm diameter at breast height (DBH 1.5m) they were included for replacement at a 1:1 basis where their stem diameter was above 10cm. which is slightly more generous than the BTRS which states trees below 15cm may be replaced on a 0:1 or 1:1 basis.
- 3.33 Of the 162 probable losses, 38 would be in the primary access corridors in from Broomhill Road and the cycleway upgrade from School Road. The remaining 124 are in conflict with the illustrative masterplan.
- 3.34 This exercise results in a total estimate of 250 individual replacement trees as per the standard.

Consolidated AIA Drawing

- 3.35 To assist the inquiry, I have prepared Drawing 1 which consolidates the outline AIA and the AMS for the access points.
- 3.36 It shows trees and groups that would definitely need to be removed to facilitate construction of the new pedestrian and cycle access onto School Road and the proposed road access from Broomhill Road. These trees are

¹³ CD10.2: See Committee Report Key Issue C (Impact on Trees) and the sub-section titled "Site access arrangements and impact on trees" (page 20)

¹⁴ CD5.8: Bristol Planning Obligations Supplementary Planning Document (Bristol City Council) Refer to Part 2 'Trees' pages 20-21.

shown in red on Drawing 1 (appended to proof but a thumbnail shown below at Figure 1 for ease of reference).

3.37 For the other outline elements of the scheme, trees that are in conflict with the illustrative proposals were identified in the AIA. These are shown in amber on Drawing 1. Trees that will definitely be retained, based on parameter plans, are shown in green.



Figure 1: Consolidated AIA

- 3.38 In my evidence at Chapter 6, I provide a detailed appraisal of the effect of the scheme on important trees, groups and woodlands, including those covered by TPO1404^[15].
- 3.39 My evidence at Chapter 6 demonstrates how I consider the parameter plans, illustrative masterplan and Design Code provide for acceptable retention and incorporation of important trees. The application is of course in outline and the Inspector would be able to impose conditions to require protection of specific trees shown in amber, or to control removal of such trees via approval of reserved matters applications, if deemed appropriate.

¹⁵ CD8.7: TPO1404 Land at Broom Hill

Hedgerow Impacts Drawing

- 3.40 Different hedgerow identification and numbering systems are used in the Outline EcIA, the AIA and the HER. As explained in technical documents for each of these topics, this a consequence of the different assessment methods adopted by each topic, each according with published survey guidance for the individual topic; this is not a deficiency or error. As technical assessment methods differ between each of these topics, 'hedgerows' are therefore defined, identified, referenced and mapped differently. For example, if a hedgerow has outgrown laterally so it is more than 5m width, ecological survey guidance is that it is to be assessed in EcIA and BNG as scrub or woodland, rather than as a linear feature.
- 3.41 The historic environment assessment initially identified seven field boundaries that were shown on 1840s tithe mapping. These are labelled as Historic Hedgerows H1 to H7 in the HER. Further archival research (Appendix D) has re-referenced these as HH1 to HH7 and identified two other field boundaries HH8 and HH9.
- 3.42 Bristol Tree Forum has also provided their own schedule of hedgerows^[16]. In order to bring together the different referencing systems and enable the inquiry to assess the effect of the Appeal Scheme, I have produced Drawing 2 (Hedgerow Impacts). This is based on the submitted parameter plans and the illustrative masterplans. A thumbnail of Drawing 2 is shown below (at Figure 2) for ease of reference.

¹⁶ CD4.1 Bristol Tree Forum - Comments - Brislington Meadows (July 2022) Refer to Appendix 8 'Table of current hedgerows on Development Site' (page 39)



Figure 2: Hedgerow and Habitat Impacts

- 3.43 Drawing 2 classes each field boundary in terms of:
 - Overall length the total in the Appeal Site being 1,564m
 - Shown in Red Length that is presumed lost for access, circulation or earthworks required for place-making – the total estimated at **430m**. This loss is almost all in the outline area, apart from 15m of H6 required for access off Broomhill Road. However, to implement the illustrative masterplan, these losses would be inevitable as a consequence of the required earthworks.
 - Shown in Brown Length that would probably be lost, based on the submitted parameters plans and the illustrative masterplan, but at detailed design stages, it might be possible to retain some sections of hedge if finished ground levels are suitable and/or retaining structures can be accommodated this total estimated at 277m
 - Shown in Green Length that would definitely be retained under the parameters plans being 856m.
- 3.44 I address the matter of hedgerow importance and the effect of the scheme on hedgerows in detail in my proof at Chapter 6. This includes a hedgeby-hedge assessment of importance, value and mitigation proposals.

- 3.45 Nevertheless, I trust that Drawing 2 can be accepted by all parties as a factually accurate basis for quantification of impacts on hedgerows and vegetated field boundaries.
- 3.46 For clarity, the Council's Statement of Case notes an agreed position of 74% loss of hedges. This is correct insofar as it applies to the hedges in the site that were assessed in terms of the Hedgerow Regulations (H1 to H6). However, there are other lines of trees or former field boundaries that have now become so overgrown (or in some cases degraded by human activity) that they are now categorised as scrub/woodland and hedgerow survey methods cannot be applied. Nevertheless, they are still more or less recognisable as linear features. On this basis, the maximum loss would be c45% of existing hedgerows and former field boundaries.

Veteran Trees

- 3.47 The Council's witness provided me with the location of 6 hawthorns alleged to be veterans on 4th January 2023, along with confirmation they consider T5 (an oak tree on the southern boundary) to be a veteran. The witness did not at that time, provide any other evidence about the hawthorns and indicated he would confirm a final tally following a site visit by the Council's Tree Officer on 5th January. The final tally was provided in terms of a location map showing 11 hawthorns on 6th January, but with no specific information, evidence or analysis about the hawthorns in question.
- 3.48 Given the limited notice and information provided by the Council, it is not feasible to respond prior to exchange of evidence on 10th January, so I reserve my position to respond to and/or rebut any evidence the Council may produce, including drawing on the expertise of arboricultural colleagues in TEP.

4.0 SNCI Status

4.1 During the course of pre-application consultation, the Council advised TEP that the Brislington Meadows SNCI designation no longer remained in force within the allocation boundary, a consequence of the site's allocation in the Local Plan (BSA1201). This advice was consistent with the Adopted Local Plan Policy Map^[17] which does not show SNCI designation within the allocated area for BSA1201 (see extract below presented as Figure 3). Furthermore, the EIA Screening Opinion received from the Council on 11th December 2020^[18] stated "Brislington Meadows Site of Nature Conservation Importance (SNCI) is located immediately adjacent to the southern boundary of the Site", consistently with the Council's advice to TEP that the SNCI coverage no longer applied to the allocated area, or indeed to any part of the Site. This was therefore the position adopted for the purposes of completing the Outline EcIA and the Outline BNGA.



Figure 3: Extract from Local Plan Policies Map

4.2 After submission of the Outline Application, the Council reversed its opinion relating to the coverage of the SNCI designation to the allocation. They now take the view that the original SNCI boundary (as shown on the SNCI data form provided by Bristol Region Environmental Records Centre (BRERC - see extract below at Figure 4) shows the whole Brislington

¹⁷ CD5.4: Policies Map

¹⁸ CD7.6: EIA Screening Opinion received from the Council on 11th December 2020 - 20/05675/SCR Request for a Screening Opinion as to whether an Environmental Impact Assessment is required for a residential development comprising up to 300 homes.

Meadows SNCI boundary, which covers most of the Appeal Site, excluding the access corridor from Broomhill Road.



Figure 4: Extract from BRERC SNCI Data Form

4.3 However, the Council's Planning Committee Report (7th December 2022)^[19] confirms that the LPA is not assessing the site as an SNCI to which that specific policy protection applies. The report states:

"The application site is allocated for housing under policy SA1 of the Site Allocations and Development Management Policies Local Plan. Sites in SNCIs which were allocated for development are to be considered under Policy SA1 and not under the SNCI provisions in policy DM19. For those allocated sites, Policy SA1 sets out specific development considerations which address loss of nature conservation interest with provisions for ecological surveys, mitigation and compensation. The SNCI provisions contained within policy DM19 are directed to the areas shown as SNCI on the Local Plan Policies Map – this is indicated in the supporting text of DM19 at paragraph 2.19.5. Therefore, in accordance with Section 38(6) of the Planning and Compulsory Purchase Act 2004, for the purposes of this assessment the proposal site is not considered to be within the SNCI as it is not shown as being so on the Local Plan Policies Map."

¹⁹ CD10.2 LPA Statement of Case - Appendix 1 Development Control Committee B, 7 December 2022 (Refer to final paragraph, page 1)

- 4.4 In recognition of this change in position of the SNCI designation coverage, the Outline BNGA and Outline EcIA have been reviewed accordingly. The Ecological Briefing Note presented at Appendix B presents the detailed account of these reviews and conclusions.
- 4.5 The review of the Outline EcIA concludes that the coverage of the SNCI designation, in so far as it overlaps with the allocation BSA1201, does not materially alter the findings or conclusions of the Outline EcIA. The inherent ecological value of the application site remains unaltered from that described and assessed by the Outline EcIA. The assessment and recommendations set out by the Outline EcIA (Sections 5 and 6, respectively) remain relevant.
- 4.6 Mr Connelly's evidence(paragraphs 5.70 to 5.91) addresses the Appellant's position on how the SNCI designation should be treated in terms of policy and the planning balance. I make the following points relevant to consideration of ecological impacts. For the purpose of clarity (i.e., not expressing an opinion) I use the terms "former SNCI" and "retained SNCI" to mean the areas within, and south of, the Appeal Site, respectively.

Most of the Appeal Site meets SNCI criteria

4.7 TEP's assessment is that the majority of the Appeal Site i.e., the former SNCI, continues to meet SNCI selection criteria in conjunction with the rest of the SNCI, and this assessment has informed the process of scheme design and mitigation.

No new features of SNCI value since allocation

- 4.8 The 2010 SNCI scorecard ^[20] noted under selection criteria 3a (diversity species) "a high number of species have been recorded, including at least 80 grassland species, 19 butterfly species, 26 bird species, slow worm and several mammal species including moles, hedgehogs and badgers". Nationally scarce ivy broomrape and locally scarce slender rush were noted under criteria 4a (rarity species). Neutral and damp grassland, scrub, hedgerows, a stream and a small area of open mosaic on previously developed land and a number of veteran trees were noted under criterion 3b (diversity habitats) with damp grassland and unimproved neutral grassland being noted under criterion 4b (rarity habitats). Veteran trees are noted under criterion 6 (irreplaceability).
- 4.9 The 2010 review covered the whole SNCI and therefore encompasses a far larger area, including Victory Park, and a wider range of habitats than are present within the Appeal Site.

²⁰ CD11.5: Brislington Meadows SNCI Scorecard 2010

4.10 The Outline EcIA has not identified any material change in the ecological value of the Allocation Site since the 2010 review. There are no features within the Allocation Site that were not previously identified by the original SNCI designation or subsequent SNCI reviews. This means that there are no new reasons to identify the site as SNCI that were not already known about when the site was allocated.

Loss of SNCI was "priced in" to the Allocation

- 4.11 The 2008 Strategic Housing and Land Availability Assessment (SHLAA) identified a substantially larger site, appearing to cover most of the full extent of the Brislington Meadows SNCI designation. The allocation process has systematically reduced this proposed allocated area to the current position, the allocation being adopted confirming the ecological harm to both Brislington meadows SNCI and the SNCI network was concluded to be outweighed by the positive benefit.
- 4.12 The predicted harm is clearly considered in the 2013 Sustainability Appraisal (SA) Main Report^[21] e.g. paragraph 4.88.8.1 states "*Therefore Option A and B are considered to have potential for a negative effect on the connectivity and function of the Wildlife Network formed by this particular local site and its corridors*" and paragraph 4.88.8.2 states "*Options A and B are also considered to have potential for negative effects as a large expanse of the existing Brislington Meadows SNCI, approximately half, 15 hectares of the SNCI, would be lost and the associated habitats and species onsite displaced from this area of the city. Collectively the loss of the Wildlife Network connectivity and function and a large expanse of SNCI are considered to have potential for significant negative effects.*" Option A is an allocation for housing and Option B is allocation for employment.
- 4.13 Option C, no development, was also considered. Paragraph 4.88.8.3 states "Option C on BSA1201...to not allocate is considered to have positive effects on local ecology through protecting the status of the local site and maintaining current connectivity and integrity of the Wildlife Network."
- 4.14 Loss of the SNCI designation is clearly considered in the 2013 SA Main Report at paragraph 4.88.9.3 which states "the site contains SNCI land which might be lost to development if it cannot be replaced or recreated elsewhere. While it is considered that Wildlife Corridors can be mitigated and often integrated or re-sited as part of development, if SNCI land is lost and then not replaced leading to a net loss of SNCI land in the city, it could be considered a loss of valuable land". The 2013 SA Main Report considered this loss in balance with other important open space or green belt land and concluded "Overall on the site, not allocating would lead to

²¹ CD8.3 Sustainability Appraisal Main Report - Site Allocations and Development Management Policies

both a positive (retention of SNCI land) and negative effect keeping the less important areas of open space and Wildlife Corridor, as opposed to meeting either housing or employment need on this less valuable land."

- 4.15 The 2013 SA Main Report concludes the preferred approach for BSA1201 is Option A Housing. The rationale for this preferred approach was cited as "Significant Positive effect on Housing Provision" and "Positive effect on Improve Healthy Lifestyles and Increasing Walking, Cycling and Public Transport". The rationale also referred to 'any new significant effects' being set out in the Preferred Approach Effects Section (Section 4.91).
- 4.16 The net area of the allocation was reduced to the current adopted allocation extent, the reduction being considered in the Preferred Approach Effects Section of the 2013 SA Main Report (paragraph 4.91.5.1) to "*retain a much larger area of SNCI assisting in protecting this more valuable land assets in the city*.". Further, the development considerations were refined and the 2013 SA Main Report concluded the development considerations "*...now effectively require compensation and mitigation to reprovide, offsite and nearby, the type of habitat which might be lost to development. This is considered to reduce the potential for negative effect from harm or net loss of SNCI land in the city, creating an implementation dependent effect on conservation and wise use of land."*
- 4.17 I note that the aims of the allocation policy are to secure compensatory habitats of the type lost to development, but do not state that a replacement SNCI should be created. The net loss of SNCI land in the city was accepted as an inevitable consequence of development of the allocation.
- 4.18 My Appendix G provides a detailed and illustrated narrative of how the SNCI was dealt with in the Sustainability Appraisal and Allocation Policy.

Homes England acted in good faith

- 4.19 Homes England has acted in good faith based on clear guidance from the Council that the Appeal Site was no longer SNCI. During pre-application discussions with the Council ecologist, TEP and Homes England were assured that the allocated land was no longer designated as SNCI^[22].
- 4.20 If planning permission is granted, Homes England is committed to working with the Council to ensure contributions from the development are directed towards habitat restoration and enhancement in the retained SNCI, as well as creation of habitats of the type lost to development elsewhere.

²² CD1.21(a) Refer to Annex A which includes email correspondence between Council Officers and Rachel Roberts of TEP and Note 3.0 of the Telephone Meeting held on 18th November 2020 between Rachel Roberts and Nick Michaels (then the Council's Nature Conservation Officer).

Some parts of the Appeal Scheme could be added back in to the <u>SNCI</u>

4.21 Whilst designation of SNCI boundaries is a matter for the Local Sites Partnership and the Local Authority, it is my opinion that permission granted in accordance with the parameters plans and the illustrative masterplan would retain or create habitats that, in conjunction with the retained SNCI outside the allocation site, meet designation criteria, and this should be regarded as a benefit that was not foreseen in the allocation policy. The three areas where this may apply are shown on the graphic below (Figure 5), based on the post-development habitat map included with the Outline BNGA^[23]. They total some 2.52 hectares.

Figure 5: Areas of the post-development landscape that might be capable of forming part of a future Brislington Meadows SNCI



- 4.22 The retained woodland / scrub belt along the southern boundary already extends several metres into the Appeal Site and would be brought into ecological management. This covers approximately 0.62ha.
- 4.23 The proposed system of wetlands and meadows that would form the SuDS system would be planted and seeded with a diverse and locally appropriate

²³ CD1.22: Outline Biodiversity Net Gain Assessment (TEP Ref 7507.20.070 v4)

mix, and managed under a Landscape and Ecological Management Plan (LEMP). Over time, this could become of SNCI value, given its location immediately adjoining the retained SNCI. This covers approximately 1.25ha.

4.24 The eastern green corridor, parallel to Bonville Road. This area of neutral grassland, scrub and woodland is partly within the former SNCI and partly within the Bristol Wildlife Network. It would largely be retained. Some areas would be lost to create an emergency access and footpath/cycle links, but the majority would be managed under the Ecological Management Plan. In conjunction with the existing SNCI, this corridor could maintain its contribution to the existing SNCI. This covers approximately 0.65ha.

5.0 Allocation Policy, Scheme Design and the Mitigation Hierarchy

- 5.1 Allocation BSA1201 includes the following development considerations of specific relevance to nature conservation. It states that development should:
 - be informed by an ecological survey of the site and make provision for mitigation and compensation measures, including enhancement to the grazing land adjacent to Victory Park and compensation for the loss of semi-improved neutral grassland and damp grassland... (third point of consideration)
 - retain or incorporate important trees and hedgerows within the development which will be identified by a tree survey (fourth point of consideration); and
 - provide a green infrastructure link with Eastwood Farm Open Space to the north-east (fifth point of consideration);
- 5.2 The design of the Appeal Scheme has been informed by a very thorough and well-documented process of iterations, commencing with appraisal of site-specific policy, surveys, pre-application discussions, consultations with the Council and stakeholders, and appointment of a highly experienced multi-disciplinary design team.
- 5.3 Mr Charles Crawford describes the design iterations which have, at all stages, been influenced by the ambition to sustain and enhance biodiversity. The allocation does of course envisage that not all ecological and tree features can be retained in situ. I draw the Inspector's attention to the DED appended to Mr Crawford's proof^[1]. This demonstrates that biodiversity was a fundamental consideration at each decision.
- 5.4 The application was submitted in outline, with all matters reserved apart from access which is subject to detailed application. A series of Parameter Plans have been prepared by LDA Design which define the proposed extents of development across the site. The Landscape Parameter Plan (LDA Design Dwg. No. 7456_102 version 9.0)^[24] sets the layout and minimum extent of green space within the development. It fixes areas of tree retention and presents indicative layout for the Primary Street and play locations. The Landscape Parameter Plan is the primary layout used to inform the EcIA. I note the minor revisions to parameter plans appended to Mr Crawford's evidence^[25], but these do not result in any adverse consequences to ecological or arboricultural features already shown for retention.

²⁴ CD1.5: The Landscape Parameter Plan (LDA Design Dwg. No. 7456_102 version 9.0) 25 Refer to Appendix 1 of Mr Crawford's Proof of Evidence

- 5.5 The Landscape Parameter Plan does not, however, identify the full construction footprint, inclusive of supporting infrastructure such as sustainable drainage features. An Illustrative Masterplan (LDA Design Dwg. No. 7456_039)^[26] was prepared by LDA Design which shows one way in which the development could come forward within the parameters, including indicative locations of the sustainable drainage basins and other reserved matters of the development such as footpath / cycle routes. While illustrative, this masterplan has been developed during a highly iterative process accounting for geotechnical, ecological, arboricultural, historic and drainage considerations.
- 5.6 The Design Code^[27] Chapter 2 sets out four masterplan principles and the text explains that they are "guidelines that set out the key components that should structure the overall development layout". Being 'guidelines', they do not definitively fix any aspects of the design. Chapter 3 sets out overarching design principles. They are expressed in relatively high-level terms but are intended to be fixed by an Outline consent and as per the parameters shown on the submitted parameter plans. Chapters 4 10 contain lists of design requirements (shown within green boxes) which Reserved Matters proposals should comply with these would therefore be fixed by the Outline consent. These masterplan principles, design principles and design requirements include several measures that would deliver biodiversity mitigation, compensation and net gain.
- 5.7 The Illustrative Masterplan and Design Code has undergone stringent capacity testing and has been subject to independent review by Design West and confirmed to be a positive response to the combined constraints and development drivers. It is therefore considered the Illustrative Masterplan is representative and appropriate to inform the Outline EcIA and the Outline BNGA.
- 5.8 The illustrative masterplan and Design Code is one way in which development could come forward, but there is scope for additional ecological and arboricultural protections at Reserved Matters stages should the Council consider these to be necessary. The proposed planning conditions require "accordance with" the Design Code.
- 5.9 The following paragraphs describe how the scheme design addresses the ecological considerations of the site-specific policy. My narrative takes account of the minor revisions to parameter plans and land use regulating plans appended to Mr Crawford's proof of evidence.
- 5.10 **"Be informed by an ecological survey of the site..."** A comprehensive range of ecological surveys, including desk study, habitat and flora surveys

²⁶ CD1.10: Illustrative Masterplan (LDA Design Dwg. No. 7456_039)

²⁷ CD1.14 Design Code, LDA Design

and fauna surveys have been completed. The scope, methods, findings, conclusions and interpretation of these surveys are not disputed.

- 5.11 **"...make provision for mitigation and compensation measures..."** The Outline EcIA^[28] sets out in Section 6.0 a comprehensive range of recommended avoidance, mitigation and compensation measures for valued ecological features, including Brislington Meadows SNCI (the residual SNCI), habitats, protected flora and protected and notable fauna. Appendix H of my evidence contains the details for each ecological feature, and I summarise the approach below (paragraph references relate to the Outline EcIA):
 - Details of construction avoidance and protection measures set out at paragraphs 6.14 to 6.19 are recommended to be incorporated into an ecological mitigation and protection management or otherwise into the Construction Environmental Management Plan (CEMP), the production of which is anticipated to be secured by condition;
 - Paragraphs 6.20 to 6.28 set out design parameters for onsite grassland creation, namely the 'wet meadows' and 'dry meadows' proposed across the southern and eastern portion of the site. Design parameters specified include key species composition and thresholds, condition criteria required to comply with the Outline BNGA, and topographical and hydrological design features for the wet meadows;
 - Protection of the veteran tree T6 must be ensured by detailed design and a detailed arboricultural impact assessment (AIA) is confirmed to be required at the detailed design stage with appropriate tree protection measures implemented in accordance with BS5837:2012 and the AIA recommendations;
 - Paragraphs 6.32 to 6.35 set out recommendations for woodland and woody scrub enhancement or creation. Recommended species diversification is specified. Paragraph 6.32 also confirms that the longterm management plan recommended at paragraph 6.10 (i.e., the Landscape and Ecological Management Plan (LEMP)) will include an enhancement strategy for woodlands (and other woody scrub if appropriate), developed according to arboricultural advice and also including specific measures to ensure target conditions set by the Outline BNGA (or subsequent updates) will be met;
 - Paragraphs 6.35 to 6.41 provide a framework for new hedgerow planting, including species-rich mixes, and protection of retained and new hedgerows within ecological corridors, specifying buffer distances and composition;

²⁸ CD1.21: Brislington Meadows Outline Ecological Assessment (TEP Ref 7507.20.066v6) – refer to Section 6

- Paragraphs 6.41 to 6.43 detail recommendations for protected plants, notably native bluebell. Recommendations range from hedgerow translocation to turf or individual translocation to new bulb planting. The long-term management plan (i.e., the LEMP) recommended at paragraph 6.10 is to include habitats which support bluebells to ensure appropriate protection to maintain integrity of the populations;
- Paragraphs 6.45 to 6.86 detail a suite of avoidance, mitigation, compensation and enhancement measures for amphibians, reptiles, birds, invertebrates, badgers, hedgehogs and bats. Recommendations include options for mitigation or compensation approaches subject to phasing and design solutions yet to be finalised (for example, on site retention or offsite translocation of slow worms). Pre-construction requirements are raised (for example, inspection of trees with bat roost potential and ongoing monitoring for badgers). Sequential phasing of vegetation removal and advanced planting is recommended (according to final phasing and build programmes) to lessen effects of habitat loss and thus reduce displacement and disturbance effects. On site habitat creation and landscape management considerations are identified.
- The recommended framework of avoidance, mitigation and compensation measures summarised above are anticipated to be developed in detailed design stages, accompanied by the production of the long-term management plan (the LEMP) recommended at paragraph 6.10 and mitigation and management method statements for protected and notable species, all of which to be produced to inform any Reserved Matters application and be secured by condition or planning obligation as appropriate.
- 5.12 The November 2022 update to the Outline EcIA (Appendix C) confirms that the site has not undergone any material change since the application was submitted. The recommendations above remain relevant. However, I draw attention to the following matters:
 - Patterns of badger activity on site have adjusted slightly with more activity in hedge H2. However, the proposals for pre-construction monitoring and method statements would apply in the same manner.
 - The Council considers there may be further veteran trees. In relation to T5, this is recognised by TEP's survey to be a grade A overmature oak with veteran features and was highlighted for retention with no intrusion to Root Protection Area. For the avoidance of doubt, parameters plans have been modified to ensure that the buffer zone for T5 is enlarged slightly so it has the dimensions required for veteran trees (15x stem diameter).
 - In relation to alleged veteran hawthorns, I reserve my position on whether any new mitigation measures might be needed until such time as the Council has produced its evidence on the matter.

- 5.13 The Outline BNGA^[29] describes further parameters for on-site design proposals at paragraph 4.2 to 4.7. Paragraph 4.4 confirms minimum commitments for hedgerow and tree planting. The Outline BNGA quantifies net area provision of habitats to be delivered onsite, along with target habitat conditions. Paragraph 4.5 of the Outline BNGA commits to providing detailed specifications for these habitats at the detailed design stage.
- 5.14 The Outline EcIA quantifies predicted habitat^[30] and hedgerow^[31] impacts, based on reasonable worst-case assumptions and accounting for temporary and permanent impacts. The Outline EcIA sets the expectation for detailed design stages to reduce temporary and permanent effects within and outside of development parcels at paragraph 6.5. This is reiterated by paragraph 4.6 of the Outline BNGA. Paragraph 6.6 confirms offsite compensation will be required in addition to the onsite measures summarised above.
- 5.15 Paragraph 6.7 of the Outline EcIA and paragraphs 4.9 and 4.10 of the Outline BNGA confirm an offsetting package will be devised in discussion and agreement with the Council and relevant stakeholders. Paragraph 6.7 of the Outline EcIA also confirms that in principle conversation has been initiated with potential offsetting partners.
- 5.16 The Outline EcIA and Outline BNGA both acknowledge that details of offsetting delivery cannot be prescribed at the Outline Stage but commit to full details being provided in support of any Reserved Matters application, this to be secured by condition. The Outline EcIA and Outline BNGA set preliminary minimum thresholds for BNG delivery, committing to 10% net gains through combined measures on and offsite.
- 5.17 While offsetting details cannot be fully prescribed at the outline stage, the Outline BNGA presents (at Section 5.0) minimum commitments for habitat unit offsetting required to achieve at least 10% BNG. Paragraph 5.13 confirms the minimum habitat units for offset delivery and the recommended composition of these units. This has subsequently been updated (Appendix C).
- 5.18 Paragraphs 5.14 to 5.21 set out mechanisms by which the offsetting package would be devised and delivered. Paragraphs 5.22 to 5.38 present further consideration of delivery options. Paragraph 6.2 commits to production of a Project Implementation Plan (PIP) for any Reserved Matters application, which will take any design considerations into a position to be deliverable on the ground. This requires details of

²⁹ CD1.22: Outline Biodiversity Net Gain Assessment (TEP Ref 7507.20.070 v4) – refer to paragraphs 4.2 to 4.7

³⁰ CD1.21: Outline EcIA (TEP Ref 7507.20.066v6) – refer to Tables 5 and 6, pages 35-36 31 CD1.21: Outline EcIA (TEP Ref 7507.20.066v6) – refer to Table 7, page 40

construction methods and phasing and will include detailed landscape planting schedules, species mixes, soil preparation methods, timetable and roles and responsibilities. Paragraphs 6.3 and 6.4 again commit to a longterm (30 year) management plan (the LEMP) with paragraph 6.3 setting out details of the management plan content. Paragraph 6.5 confirms the expectation for the management plan and PIP to be secured by condition³².

5.19 The combined measures of recommendations in the Outline EcIA (Section 6) and Outline BNGA (Sections 4-6) provide a framework for mitigation and compensation, on and offsite. Securing details and delivery of this framework is expected through appropriately worded planning conditions and planning obligation. The terms of the land agreement between Homes England and Bristol City Council preclude detailed discussion in relation to offsite ecological mitigation with the Council unless and until outline planning consent has been granted, but Homes England is committed to delivery of the offsite measures.

"...including enhancement to the grazing land adjacent to Victory Park and compensation for the loss of semi-improved neutral grassland and damp grassland..."

- 5.20 The Outline BNGA (revised by Appendix C) has calculated the minimum habitat unit shortfall needing to be delivered to achieve 10%. Discussion in principle has been held with the Council's Parks Department regarding opportunities to enhance grazing land adjacent to Victory Park, south of the application site.
- 5.21 Preliminary BNG calculations have been run to ascertain capacity for enhancement. In principle, the type and condition of the grazed land in question lends itself ideally to contributing towards grassland compensation and offset targets, being spatially relevant and appropriate for satisfying trading rules. Enhancement in this location would also contribute towards lessening displacement effects for protected species such as reptiles. Additional options for offsetting, alone or in-combination with the grazing land south of the application site, have also been explored in principle. As explained above, detailed discussions with the Council about offsite ecological mitigation are currently precluded.
- 5.22 The Appeal Site currently supports neutral grassland. Under the UKHab classification system about half of the grassland is classed as g3 (neutral grassland) and half as g4 (modified grassland). g3 is of greater nature conservation value than g4. However, no grassland on the site is a priority Habitat of Principal Importance (HPI) (habitat under S41 of the NERC Act, 2006).

³² Proposed Condition 24

- 5.23 The grassland species composition reflects underlying neutral soils, and a varied history of agricultural management as pasture, arable and/or allotment. In more recent decades, when agricultural activity ceased, the western field has generally been grazed by horses/ponies and the remaining fields have been mown occasionally, usually less than once per annum. Walking and dog-walking now occurs in most fields. The more relaxed recent grassland management has led to scrub colonisation laterally from hedges and a reduction in grassland area. Nutrient enrichment and "scuffling" associated with dog activity is currently negatively affecting grassland species composition.
- 5.24 Almost all the grassland would be lost under any development scenario accounting for viable and sustainable development platforms and SuDS requirements. The illustrative masterplan and parameters plans allow for the re-creation of neutral grassland and marshy grassland in various areas, particularly in the SuDS areas and in the proposed green corridors within the south and eastern boundaries. Grassland seeding mixes appropriate to the site's geology and consistent with the adjoining Brislington Meadows SNCI would be used. A LEMP would ensure that management by meadow-cutting, litter removal and cyclical re-seeding maintains the intended nature conservation value.

Mitigation Hierarchy

- 5.25 To add further detail to the above narrative about the allocation policy's requirement for mitigation and compensation, Appendix H summarises the recommendations of the Outline EcIA, Outline BNGA and Outline Arboricultural Impact Assessment (AIA)^[33], taking account of minor updates arising from the latest surveys (my Appendix B and C). Appendix H evaluates each ecological feature, describes how it has been considered during the design process, and demonstrates the detailed application of the mitigation hierarchy.
- 5.26 To aid the Inspector, Table 1 below summarises the mitigation and compensation measures that will deliver this aspect of the allocation policy.

³³ CD1.19: Outline Arboricultural Impact Assessment (AIA) (TEP Ref 7507.21.001)

Key ecological	Avoidance and Mitigation Measures	Compensation and Enhancement Measures
feature		
Brislington Meadows SNCI	 Avoid tree loss and minimise working footprints for drainage and cycle links in SNCI Scrub and tree habitats retained along SNCI boundary Wet and meadow grasslands created adjacent SNCI Green Corridor link to Eastwood Farm within scheme Green Infrastructure (GI) in development enables recreation Upgraded pedestrian/cycle links to provide all-weather access 	 Grassland enhancement in grazing land in SNCI (as per allocation policy) Other Biodiversity offsetting measures in SNCI to be informed by an updated EcIA and BNGA (assuming the Council facilitate works in SNCI) On site native planting and seeding to maximise nectar, fruit, pollen or seed and to good habitat structure. New wildlife refuges Long term management of on-site habitats connected to SNCI
Local Wildlife Sites Network	 GI corridors on site will maintain connectivity between local sites Sensitive Lighting Strategy for retained ecological corridors on site 	 Offsetting (habitat creation and management) informed by an updated EcIA and BNGA (assuming the Council facilitate works on their land)
Irreplaceable habitat	 Avoid excavation or other level changes within RPA and buffer zone of veteran tree(s) 	 Long term management of on-site woody habitats (for enhancement purposes not compensation for loss)
Habitats	 Updated surveys to inform final Design Stage BNG Assessment, Ecological Impact Assessment and CEMP for each reserved matters application Prioritise hedgerow retention CEMP to protect retained habitats from damage Retained habitats protected from degradation during occupation by provision of adequate buffers and connectivity Enhancement of retained scrub, hedgerow and woodland prior to construction Ecological and arboricultural clerks of works LEMP to set out long-term management and monitoring 	 New wet and meadow grasslands on site At least 540m species rich hedgerow within primary GI corridors and 515m species rich hedgerow elsewhere on site. On site new tree planting as per SPD ratios (estimated 250), or partially off site if the Council prefer. Offsite compensation and 10% net gain delivery per updated BNGA (estimated 8.37 scrub units, 14.61 grassland units and 0.07 woodland units) Grassland units delivered, at least in part, by enhancing grazing land within Brislington Meadows SNCI, as per allocation policy. Other offsetting implemented at locations within the Council's

Table 1: Schedule of outline ecological avoidance, mitigation, compensation and enhancement measures
Key ecological	Avoidance and Mitigation Measures	Compensation and Enhancement Measures
feature		
		control, or otherwise delivered via an alternate biodiversity offsetting partner.
Protected flora	 Minimise habitat losses from current estimates by detailed design CEMP to include bluebell preservation and Ecological clerk of works 	 Bulb/plug planting in new meadows and hedgerows
Invasive flora	Invasive non-natives (INNS) eradication plan	
Protected and notable fauna (birds, bats, badgers, invertebrates, slow worms, hedgehogs and other species noted in EcIA)	 Updated surveys to inform detailed designs and final CEMP. Habitat losses minimised through detailed design Habitat protection and enhancement measures as per above Avoidance of killing, injury and entrapment by measures in finalised CEMP, including individual mitigation method statements Vegetation removed outside seasonally constrained periods Phasing of vegetation clearance and advance planting implemented to maximise available habitats at any given time Acquisition of appropriate mitigation licences, determined by updated survey (trees with bat roost suitability and badger setts) Ecological clerk of works and/or Protected Species Licenced Ecologist during construction GI corridors to maintain permeability for mobile wildlife Permeability within new development to maintain range, avoid entrapment and avoid risk of mortality on roads Living roofs on apartments in accordance with Buglife guidance Light mitigation strategy, informed by lighting impact assessment LEMP to set out long-term species management & monitoring 	 Proposed SUDS basins will deliver new foraging opportunities and water sources for the range of wildlife New planting will maximise provision of pollen, nectar, fruit, nut or seed foraging sources, provide nesting material and places of shelter Additional habitat features on site including provision of bat roost boxes, bird next boxes, bird roosting pockets, butterfly and bee banks, bee bricks, bug houses, log and grass piles and hedgehog boxes;

"Retain or incorporate important trees and hedgerows within the development which will be identified by a tree survey" - I address this requirement in detail in my Chapter 6 of my proof.

- 5.27 In summary, a Tree Survey to BS5837:2012 categorises all trees. The veteran tree T6 would be retained, fully protected and incorporated into the site's green infrastructure, as would the tree T5 identified as a veteran by the Council.
- 5.28 All grade A trees, groups of trees and hedgerows would also be retained, fully protected and incorporated into the GI. Three TPO trees (Grade B) would require felling.
- 5.29 Drawing 1 summarises the Arboricultural Impact Assessment, showing, in my view, that the scheme design makes considerable effort to retain a strong and well-connected tree canopy framework that will be incorporated into the site's GI. Losses are restricted to those that are necessary for access, circulation and place-making, as set out in Charles Crawford's evidence at section 4.5 and in his appended DED^[1]. In particular the reason for design decisions causing losses of east-west cross-slope hedges H2 and H4 are discussed at his paragraphs 4.5.11 to 4.5.21.
- 5.30 Drawing 2 summarises the Hedgerow Impact. Table 2 lists the hedgerows and former field boundaries with a note on which criteria of the Hedgerow Regulations apply.

Hedge/Field Boundary Ref	Hedgerow Regulation Status A = meets archaeology and history criteria W = meets wildlife and landscape criteria	Note
H1	A, W	Largely retained, breaks for access
H2	A, W	Removed
Н3	A, W	Largely retained, breaks for access and place- making
H4	A, W	Removed
Н5	A, W	Removed, but partial retention possible at RM stages
Н6		Removed for primary access
HH1	A	Currently degraded as a hedge. Partial removal due to level changes
HH2	A,W	Retained
HH7	A, W	Retained

Table 2: Hedgerow Status and Impact - Summary

Hedge/Field Boundary Ref	Hedgerow Regulation Status A = meets archaeology and history criteria W = meets wildlife and landscape criteria	Note
HH8	A	Currently degraded as a hedge. Can probably be retained perhaps in private curtilage
HH9		Retained. Excluded from Regulations as it is a private curtilage

- 5.31 At Chapter 6 of my proof, I describe the design decisions that were made about each hedgerow. Of the hedgerows that are most valuable, losses are almost entirely for the purpose of adequate circulation, which the Council considers to be acceptable. There are other losses which are necessary for place-making and capacity, but these are in relation to other hedgerows which, whilst important under the Hedgerow Regulations, are of slightly lesser value.
- 5.32 Development of the illustrative masterplan has undergone rigorous capacity and viability testing through each iteration, in addition to measuring performance and compliance with the comprehensive range of engineering and design policy that must also be considered in balance.

"Provide a green infrastructure link with Eastwood Farm Open Space to the north-east"

- 5.33 The proposed development parameter plan delivers an unbroken (save for emergency access off Bonville Road) GI corridor along the full length of the east boundary from W1 in Brislington Meadows SNCI to Broomhill Road, opposite Eastwood Farm Open Space. Following pre-application advice from the Council, the GI corridor has a minimum width of 12m but is wider along much of its length.
- 5.34 The Outline EcIA and Outline BNGA commit to this corridor comprising habitats which include new species rich hedges (along the south boundary of the corridor, advanced planting of a species rich hedgerow has been implemented along the south boundary from W2 to Broomhill Road), native tree and shrub planting and flower rich grasslands. Landscape details for the corridor will be produced for Reserved Matters stages. The Outline EcIA and Outline BNGA in combination provide a recommended framework for habitat structure and details for design, delivery and management for habitats proposed on-site which are expected to be secured by condition. For example, there would be opportunities to create micro-habitats such as deadwood refuges, sunny south-facing banks to benefit invertebrates.
- 5.35 This green corridor will be publicly accessible but given its design, natural surveillance and its inclusion in the Ecological Management Plan, it can

sustain wildlife movements and provide habitats for species typical of urban greenspaces.

Reason for Refusal 1

- 5.36 The above narrative discusses the "on site" approach to retention and protection of ecological features. The Council takes issue with the application of the mitigation hierarchy in support of their RfR 1. The Committee Report deals with this as Key Issue B (Impact on Ecology, Habitats and Biodiversity).
- 5.37 One concern relates to multiple species displacement of a permanent nature due to extensive habitat loss on the Appeal Site.
- 5.38 Recognising that this is a site allocated for housing, some displacement is inevitable, but the design approach will maintain 45% of the site as vegetation that will provide habitat for wildlife, including foraging for bats, birds, invertebrates and slow worms; set in a framework of connected corridors linked to the remaining SNCI. Clear and measurable outcomes are set for on-site habitat creation. The Appeal Scheme has detailed and species-specific proposals for habitat and species protection that can be secured by condition. As I show in more detail at chapter 8, based on the "on-site" measures alone, some species would experience a contraction in range, but very few would be completely displaced. Harm would be minimised as far as possible at both construction and operational stages.
- 5.39 This indicates to me that the mitigation hierarchy is being followed for habitats and the species that rely on them, in a manner consistent with allocation policy and wider development management policies.
- 5.40 I also refute the Nature Conservation Officer's comments that "there is insufficient evidence that the mitigation hierarchy has been followed so that offsite compensation is not favoured before retention, mitigation and compensation on site" and "The development proposal has not identified adequate opportunities "to improve biodiversity in and around [the] developments". Opportunities have been primarily referred to offsite, but this application lacks details as to how that will be achieved".
- 5.41 In the context of delivering a well-designed place and housing numbers consistent with the allocation, it is evident that every effort has been made to retain a strong hedgerow framework on site, create new green corridors and establish significant areas of habitat along the site's boundary with the retained SNCI. Mr Crawford's evidence, notably section 4.5, explains how the mitigation hierarchy has informed all stages of design to date.
- 5.42 The updated Outline EcIA and Outline BNGA (Appendix C) both show a net gain on site in terms of hedgerows, which are one of the components of the site given particular weight in the allocation policy. In terms of length,

a net increase of c342m is expected and in terms of hedgerow units, 5.64^[34].

- 5.43 The Nature Conservation Officer's comments do not give any weight to Homes England's intentions to support the Council with enhancements to the remaining Brislington Meadows SNCI. As identified in allocation policy, this is part of the package of measures to address the loss on biodiversity arising from the allocation. It is in line with the mitigation hierarchy of compensating for unavoidable losses near the site, before moving to more distant offsite locations.
- 5.44 I address other points the Council make in support of RfR 1 later in my proof.

³⁴ Refer to Appendix C for explanation of the revised Outline BNG Assessment calculations

6.0 Trees and Hedgerows

6.1 The allocation policy states that "Development should...retain or incorporate important trees and hedgerows as identified by tree survey". This chapter describes the effects on trees and hedgerows. It describes the iterative design process which underpinned decisions on tree and hedgerow retention; and consequential mitigation and replacement. I also refer to Mr Charles Crawford's evidence which describes the iterative design process and considerations of place-making, good design and viability which influenced the decisions about whether trees and hedgerows could be retained and incorporated into the parameters plans.

Tree Survey and Arboricultural Implications

- 6.2 Avoidance of adverse effects on Category A trees has been one of the key considerations of the design process.
- 6.3 The process of tree survey under BS5837 is iterative. It starts from the position that all tree features are provisionally category A, unless and until evidence from survey shows that it falls short of category A criteria in terms of arboricultural, landscape or habitat value, whereupon it would be downgraded, on an iterative basis, to B, C or U.
- 6.4 The survey identified 34 individual trees, 47 groups of trees and 2 woodlands on or within influencing distance of the site. Of these 10 features were categorised as high quality (Category A), 34 were moderate quality (Category B), and 34 were low quality (Category C).
- 6.5 I refer to Drawing 1 which provides a consolidated Arboricultural Impact Assessment, as described at paragraph 3.36 above.

Category A trees, groups and woodlands

- 6.6 7 individual trees, 2 groups of trees and 1 woodland are category A; due to their large size, maturity, good condition and attractive canopy forms as well as good structure which gives them considerable landscape, habitat and environmental value that would take several decades to replace.
- 6.7 Parameter plans confirm that no Category A trees would be lost to development, and all can be incorporated into the layout with adequate root and canopy protection. During the planning application, Homes England provided isopachyte engineering drawings^[35] and indicative contours and retaining wall drawings^[36] to the Council's Tree Officer to

³⁵ CD2.3(b): Isopachtyes Plan Formation Against Topsoil Strip Tree Survey Overlay (Campbell Reith Drawing No. DR-C-5007-P1)

³⁶ CD2.6(b): Indicative Contour and Retaining Wall Plan (Campbell Reith Drawing No. DR-C-5001-P4)

enable them to confirm the assumptions made in the Tree Conflicts plan. The drawings are for advisory purposes but are not for determination.

Veteran Trees

- 6.8 Veteran oak tree T6 is found in the southern boundary woodland strip. Parameter plans confirm it will be retained and drawings have been produced to demonstrate that a buffer zone around it can be protected, extending to 15 times the stem diameter in accordance with Natural England and Forestry Commission Standing Guidance^[37], with no changes in level, again shown on parameters plans. If a piped drainage connection to Brislington Brook is required, this can be achieved using no-dig technology. The tree would be managed under the LEMP. Thus, this irreplaceable asset can be safeguarded and incorporated satisfactorily into the development.
- 6.9 The Council now considers an adjacent oak tree T5 is a veteran. TEP identified this as a category A tree of high biodiversity value with veteran characteristics and advised a very significant Root Protection Area. It is a TPO tree. For the avoidance of doubt, I confirm that the parameter plans have been amended (see Appendix 1 of Mr Crawford's proof) to indicate a slight increase to the buffer zone to ensure this covers the recommendation for 15 times the stem diameter. This would involve a slight amendment to the shape and/or gradients of the indicative SuDS system and I am advised by engineering colleagues that this could be accommodated at detailed design stages with no loss of the necessary water storage capacity.
- 6.10 The Council now alleges eleven veteran hawthorns are found. As noted earlier, the indicative location of these was supplied to me on 6th January 2023, with little supporting information. As noted earlier, I reserve my position and intend to respond to the Council's evidence once it has been supplied in detail, and during the period allowed for rebuttals.

Tree Preservation Order

- 6.11 TPO1404 Land at Broomhill Road^[38] was served on the site on 26th October 2020 and confirmed on 6th January 2021. It identified 16 individual trees, 3 groups of trees, and 1 woodland. My Drawing 1 denotes all TPO trees with an asterisk and provides a cross-reference to the TEP Tree Survey Reference numbers.
- 6.12 Development as laid out in the Illustrative Masterplan would result in the loss of 3 TPO trees; T10, T15 and T16 (TEP Ref: T9, W2, and T18).

³⁷ CD8.10: Refer to section entitled "Buffer Zone Recommendations"

³⁸ CD8.7: TPO1404 Land at Broom Hill

- 6.13 TPO Tree T10 (T9) is a moderately sized, middle aged pedunculate oak within an outgrown hedgerow (Hedge 4) that runs east-west across the slope. It is a typical example of the species in this context.
- 6.14 TPO Tree T15 was not recorded as an individual tree in TEP's survey, rather it is recorded as part of the wider woodland W2. It is a middle-aged pedunculate oak with a more upright form commensurate with its location in a woodland.
- 6.15 TPO Tree T16 (T18) is a field maple of very similar size, condition and function to T10. It is growing in an outgrown hedgerow (hedge 2) that runs east-west across the slope.
- 6.16 All these TPO trees and woodlands are assessed under BS5837 as being moderate quality (Category B).
- 6.17 Loss of these TPO trees is consequential on the need for primary access, internal circulation and place-making, as summarised in Mr Crawford's evidence (notably section 4.5.11 to 4.5.21 which deals with losses of hedges 2 and 4). I also draw attention to the DED^[1], notably Items 5 and 9 which demonstrate how avoidance of effects on TPO trees was considered in detail.
- 6.18 Whilst loss of TPO trees is undesirable but not impermissible, loss of TPO T15 is an unavoidable consequence of the allocation and its access from Broomhill Road. This appears to be accepted by the Council.
- 6.19 Loss of the other two TPO trees is due to conflicts with the illustrative masterplan. These TPO trees T10 and T16 (TEP references T9 and T18 on Drawing 1) would be removed for the purpose of place-making. As set out in Mr Charles Crawford's evidence, the proposal to remove these trees and the sections of hedgerow they are found in is inevitable given the need for good place-making, creation of adequate plot sizes and depths, and creation of accessible walkways.
- 6.20 TPO T10 (TEP T9) is in a hedgerow oriented across the slope (hedge 4). This orientation, in combination with proximity to the required alignment of the main access road (determined to a substantial degree by levels) create substantial constraints to practical and viable design. Iterations were trialled retaining the TPO tree. This fixed levels at grade in this location, resulting in substantial engineering works and undesirable engineering solutions to create development plots which in turn were suboptimal in respect of several design considerations. Given the need to create a satisfactory design with adequate plot sizes and the prevailing slope, the TPO tree cannot viably be retained.
- 6.21 The requirement for removal of TPO T16 (TEP T18 in hedge 2) is placemaking. Early iterations of the masterplan attempted retention of the tree and most of its hedgerow, but proximity to the overhead lines in the south

renders much of the land between the hedge and overhead line easement and also between this hedge and hedgerow H3 problematic for development in consideration of factors including levels, traffic hierarchy, adequate circulation, turning circles, services and orientation (influencing solar gain and views). Capacity, circulation and place-making requirements could not therefore be met satisfactorily, even in iterations testing retention of the TPO tree. As removal of the hedge facilitated sustainable development for a substantial portion of the site, the client and design team considered that harm from loss of the TPO tree and the associated hedge was outweighed by a combination of design and housing capacity benefits in the context of the site's allocation.

6.22 Study of Drawing 1 shows that the illustrative masterplan has made considerable efforts to retain all other TPO trees, for example the proposal for footpath circulation and open space provision around trees 25, 26 and 27 (TEP Survey references on Drawing 1), as demonstrated by Item 9 of the DED appended to Mr Crawford's evidence. The amenity provided by the TPO as a whole can be sustained and replacement trees would be provided in accordance with the Bristol Tree Replacement Standard (BTRS).

Other Trees

- 6.23 Drawing 1 shows the arboricultural impacts a precautionary approach has been taken to allow a worst-case assessment, given that the application is in outline.
- 6.24 As noted at paragraph 3.29, TEP has prepared a detailed Arboricultural Method Statement and Tree Protection Plan (AMS/TPP) for the points of access from Broomhill Road and the full cycleway connection to School Road – see Appendix E of this evidence. The AMS details tree protection measures and special mitigation construction methods for the site accesses applied for in detail. It includes physical protection in the form of protective fencing and above ground construction for foot and cycle access; and operational controls including supervised excavation and root pruning. These measures are sufficient to secure the long-term health and stability of retained trees.
- 6.25 Woodland W2 would be unavoidably affected by the access from Broomhill Road. It is Grade B. The AMS/TPP demonstrates that losses are limited to those that are unavoidable and that a functioning woodland belt can be retained and managed east of the proposed road in accordance with the allocation policy requirements.
- 6.26 Drawing 1 shows in red the tree features inevitably lost for the accesses and in amber, the tree features in the reserved matters areas that conflict with the illustrative masterplan. However, for some "amber" tree features, detailed design stage will likely identify special engineering measures that

can be implemented to ensure adequate retention of some trees and root protection areas shown as "conflicted".

- 6.27 Taking red and amber trees, groups and woodlands into account, TEP has applied the Bristol Tree Replacement Standard which requires trees in groups to be individually counted and categorised by diameter at breast height (dbh).
- 6.28 Appendix F of this proof details losses, summarised as follows, confirming that 90% of losses are of small and relatively young trees below 30cm dbh, the majority of which are growing in woodland and groups:
 - 101 trees below 20cm dbh
 - 45 trees 20-29.9cm dbh
 - 10 trees 30-39.9cm dbh
 - 3 trees 40-49.9cm dbh
 - 3 trees 50-59.9cm dbh

Bristol Tree Replacement Standard

6.29 As noted at Appendix F, a total estimate of 250 individual replacement trees would be required.

Reason for Refusal 2 relating to Important Trees

- 6.30 The Committee Report mainly addresses this under Issue C (Impact on Trees). The report interprets the allocation policy requirement to "*retain or incorporate important trees.... which will be identified by a tree survey*" by reference predominantly to TPO trees.
- 6.31 I contend that the most appropriate method of identification of importance is BS5837:2012 and its categorisation system, under which Category A trees are of highest importance. The British Standard is a comprehensive assessment of tree quality, lifespan, health and characteristics. It enables a consistent evidence-based approach to tree categorisation and also enables site-specific factors such as topography, drainage and infrastructure to be taken into account when advising on the effect of development on trees. Its categorisation system is based on descriptive and objective criteria which require the surveyor to justify the specific reasons for assigning a retention category.
- 6.32 By contrast a TPO is made for the purpose of protecting amenity where it is expedient to do so. In the context of planning decisions, TPO trees are of course a material consideration to be weighed in the planning balance, but are not an exclusive method for identification of important trees.

- 6.33 The Council's Committee Report accepts that planning permission can be granted resulting in loss of TPO trees where this is justified, and mitigation is provided.
- 6.34 In relation to the Appeal Scheme, the Council appears to accept that one TPO tree would inevitably be lost to form the primary access.
- 6.35 The other two TPO trees (which are category B trees under BS5837:2012) would be lost for place-making purposes as described above at paragraphs 6.19 to 6.21 and discussed at Mr Crawford's proof in paragraphs 4.5.11 to 4.5.21. A study of Drawing 1 shows that their retention, on a side slope, would require a very considerable variation to the scheme, which would be unsatisfactory in place-making terms. I therefore contend that the Inspector is entitled to weigh the place-making benefits of the scheme as expressed by Mr Crawford against the harm to amenity caused by loss of TPO trees.
- 6.36 I disagree with the repeated assertion under Issue C that the extent of tree loss is excessive. The impact on the TPO is low, with the great majority being retained and incorporated satisfactorily in managed open space. The impact on other mature and semi-mature trees is also low, as can be seen from a study of Drawing 1, which demonstrates the care taken to retain and incorporate trees.
- 6.37 The number of trees to be lost is primarily made up of very small trees. Taken together, the Parameters Plans, the Illustrative Masterplan and the Design Code will provide very significant mitigation and replacement for losses of all trees.
- 6.38 The integrity of the TPO as a whole would be maintained and its contribution to amenity maintained through the tree replacement scheme.
- 6.39 I have seen no evidence from the Council of what it would consider as not being "excessive" in terms of tree removal. For example, I have not seen any evidence of from the Council where an acceptable threshold of tree removal has been identified or where an alternative approach to tree removal that is consistent with the development of the allocation has been detailed.
- 6.40 The Committee Report refers to the isopachyte plans submitted to the Council^[39] to provide further evidence of the feasibility of tree and root protection area retention. It is not disputed that there would be reprofiling of the site, but the plans give confidence that tree and root protection measures would be effective. It demonstrates that level changes near Root Protection Areas of trees shown as retained on

³⁹ CD2.3(b): Isopachtyes Plan Formation Against Topsoil Strip Tree Survey Overlay (Campbell Reith Drawing No. DR-C-5007-P1)

parameter plans would be small, so reducing the possibility of an undesirable situation of trying to impose an unworkable tree protection scheme as part of a reserved matters approval.

- 6.41 The Committee Report also touches on tree loss under Key Issue B (Impact on Ecology, Habitats and Biodiversity). The Committee Report states: "*The proposed development has not identified mitigation and compensation measures for the loss of biodiversity on the site.*" In relation to trees, I note that the full complement of tree replacements required under the BTRS (250) can be planted within the site using a mix of medium and large canopy trees, should the Council wish, taking account of detailed urban design considerations. If the Council consider it better to deploy some of the replacements elsewhere in the City, Homes England is willing to agree this.
- 6.42 I also refer to paragraph 3.22 which notes that the updated BNGA (see Appendix C) shows a net gain of "Woodland and Forest" on site, with only a tiny requirement (0.07 habitat units) required offsite to meet the 10% net gain threshold.

Reason for Refusal 3 relating to irreplaceable habitat (trees)

- 6.43 In terms of irreplaceable habitat, the Committee report only refers to "ancient" hedges a topic which I consider later. It does not advise members of potential loss or deterioration of veteran trees. As noted at paragraph 3.10, the Council had apparently taken advice that there were veteran hawthorns in some hedges that may be affected. The locations of these were only communicated to me in full on 6th January and I expect the Council to provide evidence on the qualities of the hawthorns in question, which I shall respond to in rebuttal.
- 6.44 The Council also alleges oak tree T5 is a veteran. I discuss this above and demonstrate that a buffer zone can be provided around this tree to the extent advised under Standing Guidance.

Hedgerow Assessment

- 6.45 The approach to hedgerow conservation is perhaps the most contentious aspect of the ecological assessment and scheme design. I deal with this in the following steps:
 - Nomenclature: I explain the referencing system for field boundaries and hedgerows which varies between ecological and historic assessments.
 - Assessment of Importance: I explain the different criteria that are commonly used to evaluate the ecological importance of hedgerows and field boundaries. I draw conclusions on which are the most valuable and significant on the appeal site.

Description of Probable Impact: For each hedgerow and field boundary, I describe the extent that would be lost, based on the parameters plans. For each affected hedgerow I describe the reason why Homes England has taken the view that loss would be required e.g., access, circulation, place-making. I then describe what mitigation is proposed e.g., routing access through relatively narrow sections

Nomenclature

- 6.46 There is potential for confusion as the ecological and historic environment reports use different numbering systems for hedgerows on site. Further difficulty is added because habitat survey protocols and BNG metrics require that where woody shrubs are more than 5m wide at the base, features should not be mapped as hedgerows, but rather as scrub or woodland. In other words, such wide hedgerows are not "linear features" measured in metres, but "area features", measured in m².
- 6.47 To reduce confusion, I have produced Drawing 2, which consolidates the impact assessment for hedges. It shows location, hedge reference and probable impact.
- 6.48 Numbering of hedgerows with woody shrubs <5m at base (H1 to H6) follows the Hedgerow Assessment^[40]. As some have gaps or nodes, they are sub-divided e.g., H1a, H1b, H1c for the purposes of assessment.
- 6.49 Other historic field boundaries (see Appendix D) are labelled as Historic Hedgerows HH1, HH2, HH7, HH8 and HH9. These were not included in the ecological Hedgerow Assessment because:
 - They are no longer recognisable as continuous habitats due to degradation (HH1), or;
 - They have become subsumed into woodland or scrub and are mapped as area habitats (HH2, HH7, HH8 and HH9).
- 6.50 Drawing 2 also has labels showing the Bristol Tree Forum's classification system^[41].

Assessment of Importance

Habitats of Principle Importance

6.51 Almost all hedgerows on the Appeal Site are classed as HPI under S41 of the NERC Act, 2006. This definition encompasses almost all native species hedgerows in England. Historic field boundary HH1 would not qualify as HPI because it has become so degraded it is no longer a hedgerow.

⁴⁰ CD1.21(c): Ecological Technical Appendix C: Hedgerow Assessment (TEP, March 2022)

⁴¹ Inferred from cross-refencing with CD4.1 Appendix 8

Hedgerow Regulations, 1997

- 6.52 Most hedgerows on site are shown on tithe maps from the 1840s and thus meet criterion 5a of the Hedgerow Regulations 1997, as interpreted by past legal and planning casework decisions (see Appendix D paragraphs 1.8 to 1.10).
- 6.53 The HER submitted with the application^[42] considered that the hedges were likely to have been planted as enclosure-period hedges. Further archival research (see Appendix D) has been carried out since the application was submitted that demonstrates these hedges are 18th century enclosure-period hedges. Their presence on a 1791 estate tenancy map, with labels indicating specific field sizes (Two Acre Field, Three Acre Field etc) suggest they were enclosure hedges. The rectilinear layout, the simple species composition and the absence of any ridge and furrow patterns in fields, or ditch and bank planting systems; all indicate that these hedges were planted in the 18th century, as a result of a private enclosure agreement, rather than a Parliamentary enclosure.
- 6.54 There is no archival evidence that the hedges on site formed part of an earlier field pattern that was then subsumed into an enclosure field pattern, and I have seen no evidence to this effect.
- 6.55 Appendix D also describes (paragraphs 1.24 to 1.27 and 2.1 to 2.16) how the archaeological investigations, site walkovers and LiDAR analysis also support the hypothesis that the hedgerows were planted in the Enclosure period.
- 6.56 Thus, TEP's heritage specialists do not consider the term "ancient" should be applied to hedgerows of the appeal site.
- 6.57 In considering the relative importance of the historic field boundaries, all are of equal significance. All are "important" in terms of the Hedgerow Regulations criteria but only to the same extent as all enclosure hedges planted in the 18th and early 19th centuries across the British lowlands. Appendix D notes that some 28,000 km2 was affected by Parliamentary enclosures with an estimated 200,000 miles of hedgerow planted in that period.
- 6.58 Historic field boundaries HH1, HH8 and HH9 have now become very degraded and HH1 and HH9 are at least in part used as private curtilages. Whilst the site boundary in these locations follows a former field boundary, the vegetation has little visual or ecological coherence as a hedgerow.
- 6.59 Several existing hedgerows are important under sub-paragraph 6-1(a) of Part II of the Hedgerow Regulations, due to the presence of native

⁴² CD1.18(a): Historic Environment Desk-Based Assessment (TEP Ref 7507.22.002v1.2)

bluebell, a Wildlife and Countryside Act (WCA) Schedule 8 plant species (sub-paragraph 6-3(a), fulfilling the criterion of sub-paragraph 6-1(a)).

- 6.60 This criterion of importance (presence of native bluebell) is held in common with many UK hedgerows and in ecological terms, is not typically considered to be of great weight in planning decisions, because under the WCA, native bluebell is protected from picking for commercial exploitation, rather than enjoying strict protection. As the Hedgerow Assessment reports, the hedgerows do not meet more stringent criteria of the Regulations relating to woody species richness or woodland (ground flora) richness.
- 6.61 The intent of the Hedgerow Regulations is to restrict the ability of landowners to remove important hedges. The regulations do not apply to hedgerows where removal is permitted under planning permission. Given the prevalence of enclosure period hedges, it is not unusual for planning permission to be granted that involves removal of such hedges. Neither NPPF, nor Policy DM19 nor the site-specific allocation policy set out any requirement to protect hedges by reference to the Hedgerow Regulations criteria for identification of important hedgerows.
- 6.62 Ecological surveys allow a more fine-grained assessment of the relative importance of hedgerows. Ecological value of hedgerows is assessed using a range of factors, as follows:

Hedgerow Shrub and Tree Species Richness

- 6.63 Most hedgerows are not species-rich when assessed against Hedgerow Regulations⁴³ or JNCC/UKBAP criteria^[44]. Species-rich hedges have 5 or more native woody species in 30m sample plots, with a sample taken in 100m length of hedge. The hedges sampled (H1 to H6) had between 2 and 4.5 species per plot, so are classed as species-poor.
- 6.64 Historic field boundary HH7 (the southern boundary) is now classed as woodland and scrub, so was not sampled in this way. Target notes from habitat survey^[45] and AIA indicate the presence of eight native woody species in total, so it is possible HH7 would be classed as species-rich if it were considered to be a hedge.
- 6.65 Target notes for historic field boundaries HH1, HH8 and HH9 show a limited range of native woody species, and these are definitely species-poor.

⁴³ CD11.6(d): Hedgerow Regulations 1997- refer to Schedule 1 (Part II para 7.1 for woody species diversity criteria – 5 woody spp. per 30m sample section being the relevant test here)

⁴⁴ CD11.6(c): Defra Hedgerow Survey Handbook – refer to Chapter 1 (Defining a Species-Rich Hedgerow – page 14 - 5 woody spp. per 30m sample section being the relevant test here)
45 CD1.21(b): Ecological Technical Appendix B – Target Notes

Hedgerow Shrub and Tree Species Distinctiveness and Rarity

- 6.66 There are no tree or woody shrub species that are rare or ancient woodland indicators e.g., spindle *Euonymus europaeus*. The mix of woody species is consistent with enclosure-period planting of hawthorn as the only or dominant species used.
- 6.67 It is widely recognised that the age of a hedgerow is directly correlated to the number of woody species within it. The hedgerows at Brislington Meadows are species poor, averaging fewer than 5 native woody species per 30m sections sampled. Poor coloniser species such as spindle and field maple would (at least where geographically relevant) be expected within ancient hedgerows. We have recorded one hedge with field maple (BTF claim another). No hedges contain spindle. Species mix is quite consistent amongst the hedges, again indicating they were established at the same time by similar methods, rather than being derived from management of historic woodland edges.
- 6.68 There is little ground flora typical of long-established woodland in the hedge bases. The invertebrate survey recorded almost no species associated with ancient and species-rich hedges
- 6.69 Neglect of the hedgerows (lack of cutting or laying and lack of encouraging tree replacement) is the largest likely contributing factor for many field boundaries having changed from hedgerows into lines of trees or outgrown scrub and development of gaps (within the original hedgerow line).
- 6.70 The Outline EcIA acknowledges that it would take considerable time for habitat creation measures to replace the full biomass and ecological function of such well-established habitat. This is in part accounted for by the weightings applied within the BNG metric^[46] for habitat replacements, risks and complexities.

Hedgerow Ground Flora Diversity and Rarity

- 6.71 The hedges have very little ground flora that is typical of long-established woodland habitats. Hedgerow Regulations lists 57 such species on Schedule 2 "Woodland Species". Four Schedule 2 species were recorded on site. Lords-and-ladies was recorded during the assessment in hedgerows H1a, H1c, H2, H3 and H5. Native bluebell was recorded in hedges H1a, H2, H3, H4 and H5 and wood avens recorded in H2, H3, H4 and H5. These species were also found during habitat survey of historic field boundary HH7, along with Herb Robert (see Target Notes 19,24,25).
- 6.72 Hedgerow H6 and Historic field boundaries HH1, HH8 and HH9 have no value in terms of ground flora diversity and rarity.

⁴⁶ CD2.1: Outline Biodiversity Net Gain Metric 3.0 calculator

6.73 Hedgerow Regulations 7 (1) d sets a threshold of at least 3 woodland species as one contributing feature to identification of important hedges that already have five or more woody species. The hedges on site fail the 5 woody species test, so the Woodland Species test is not engaged. Even if it were engaged, the species noted above are widespread in the English lowland landscape are not considered to be particularly sensitive.

Presence of "associated features"

- 6.74 Presence of a ditch, an embankment and/or a parallel hedgerow are indicators of enhanced ecological value. Other than Historic field boundary HH7, hedgerows on the appeal site do not have such features. It is said by Bristol Tree Forum that four hedges have "lynchet risers" and mean the hedgerow is associated with a bank (H2, H3a,b, H4 and HH7).
- 6.75 My Appendix D includes an analysis by TEP's archaeologists of LiDAR imagery. This does not indicate historic presence of earthworks to form an embankment or ditch. There is evidence of some soil creep as a result of 19th and 20th agricultural practice which means that on a sloping site such as this, there is a build-up of sediment on the upper side of hedges. However, there is no field evidence of a bank associated with H2, H3 or H4. BTF note that the riser is not associated with the field boundary but is slightly downhill.
- 6.76 Defra's Hedgerow Survey Handbook^[47] describes associated bank features as "either one-sided (half-bank) or two-sided banks)" and a hedgerow is described throughout the guidance as being "on" or "on top" of these banks. In hedgerow survey recording forms, the estimated height of the bank, if present, is recorded on each side of the hedgerow. In essence, this requires the hedge to be situated on or on top of a bank which is distinct from natural slopes and topography. Definitions are provided in the glossary as follows:
 - Bank half: A hedgerow with a bank on one side only. Tends to be alongside a road or track, as a form of terrace or cut embankment.
 - Bank lynchet: A form of bank with a near vertical face on one side.
 - Hedgebank: An earth bank or mound relating to the hedgerow, distinct from the surrounding landform. Hedgerows on top of two-sided banks are typical in the western counties where they are called hedgebanks.
- 6.77 Thus, it is clear that the hedgerows on site are not associated with ditches or banks, when considered against Defra's survey guidance.
- 6.78 Nevertheless, Historic field boundary HH7 (the southern boundary) is formed on a wide natural embankment, in part with a ditch nearby, and

⁴⁷ CD11.6(c): Defra Hedgerow Survey Handbook

thus has higher value than other hedgerows on site in terms of "associated features".

Connectivity

- 6.79 Historic field boundary HH7 forms the boundary with the adjoining part of the Brislington Meadows SNCI and also provides a strong east-west wildlife corridor link between Bonville Road and School Road. I consider this to be the highest value hedgerow in respect of connectivity.
- 6.80 Historic field boundary HH2 and Hedgerows H1 and H5 are directly connected to HH7 and the SNCI and thus also have relatively high connectivity value. Hedgerow H3 connects the small woodland in the northeast of the site with the SNCI, via H1 and has relatively high connectivity value. HH9 is now subsumed into a linear group of trees but forms part of the designated green corridor between Brislington Meadows and Eastwood Farm. It also has relatively high connectivity value.
- 6.81 Hedgerows H4 and H2 provide east-west local connectivity through the site but are not directly connected to SNCI or to woodlands, thus have lower connectivity value than the above hedges.
- 6.82 Hedgerow H6 and Historic field boundaries HH1 and HH8 are fragmented from the SNCI and green corridor network and have almost no connectivity value.

Presence of Trees and Scrub

- 6.83 Most hedgerows have some trees and outgrown mature and fully mature woody shrub species, along with lateral spread of blackthorn and bramble which are not themselves part of the hedge. They provide additional structure and opportunities for a variety of wildlife. Ecologically, structural variation of hedgerows creates the greatest value for wildlife in combination with connectivity.
- 6.84 Defra Hedgerow Survey Handbook classes hedgerows as being "with trees" where there are "tall trees" spaced at an average of less than 20m apart. On this basis, hedges H4, H6, HH1, HH2 and HH8 would be classed as being hedgerows without trees. The two oak trees associated with H5 are slightly offset from the hedgerow, so for the purposes of the BNG Metric, H5 is treated as native hedgerow (without trees).
- 6.85 Historic field boundary HH7 has relatively higher numbers of trees and larger scrub species than the other hedgerows and contains overmature and veteran trees.

Integrity (Structure and Gappiness)

6.86 Most hedgerows on site are continuous with relatively few gaps exceeding 10m. However, HH1 is the north-western boundary of the site, adjoining properties off Allison Road. It has become very degraded and gappy due to loss of hedgerow plants, scrub colonisation and tipping of garden materials and is no longer recognisable as a hedgerow. HH8 is also on the north boundary behind Belroyal Avenue and is also extremely degraded due to loss of hedgerow plants and tipping. HH9 has now become a private curtilage and is subsumed into Tree Group G38. It is no longer recognisable as a hedgerow.

Invertebrate value

6.87 Invertebrate surveys can reveal the presence of habitats that have a long history of lack of disturbance. Buglife list species known to be associated with ancient and species-rich hedges^[48]. However, the invertebrate surveys recorded only one of the 73 indicator species listed by Buglife. This was Lesne's Earwig *Forficula lesnei*. A single example of this Nationally Scarce earwig was recorded in May and two recorded in August. It is a species of scrub and lightly wooded habitats in England and Wales, particularly where traveller's joy *Clematis vitalba* occurs. It also inhabits dead umbellifer stems. The invertebrate surveys do not suggest the hedgerows have particular importance for species associated with dead wood habitats.

Bats

6.88 There are no confirmed roosts in any hedgerow trees. Some hedgerow trees have features which create "low" bat roosting potential. In terms of bat foraging activity, relatively higher levels of activity were found along HH2 and H1c/H3. Not all hedges recorded foraging during transect surveys, but all hedges would provide foraging opportunities^[49].

Period of development as habitat, including disturbance

6.89 Appendix J includes a series of aerial photographs from the period 1938 to 1946. These show that the hedges were managed as part of a farming pattern that included cattle grazing. The hedges appear to have been regularly maintained by cutting to a canopy width of 3-5m and maximum height of up to 2m. There were very few trees in the hedges, with only two large trees (presumed elm) in what is now tree group G10, these trees having subsequently been removed.

⁴⁸ CD2.8: A list of Notable invertebrates associated with ancient and species-rich hedgerows (buglife.org.uk) is hyperlinked from paragraph 1.28 of the Core Document

⁴⁹ CD1.21(j): Ecological Technical Appendix J: Bat Surveys (TEP Ref 7507.20.021v2)

- 6.90 Most hedges appear to have been relatively intact, but disturbance is evident in some areas.
- 6.91 Gaps in hedges 2 and 3 (tree groups G25, G26 and G27) are evident probably related to cattle movements between fields.
- 6.92 Hedge 2 (tree group G20) has a bomb crater evident in 1941.
- 6.93 Hedge 1c (tree group G24) underwent considerable degradation and ground disturbance during this period, perhaps due to its use as an access point between the western and eastern parts of the site. What was a reasonably continuous cut hedge with small trees (probably elm) in 1938 had seen the majority of hedgerow plants cut back with evidence of soil disturbance.
- 6.94 At some date following 1946, the traditional regular cutting of hedges across the site was discontinued, allowing outgrowth of hedge species, primarily hawthorn and blackthorn.

Evaluation

- 6.95 Taking all the above factors into account, I consider that:
 - Historic field boundaries HH2 and HH7, along with hedgerows H1 and H5 are of the greatest significance within the appeal site. They are important under the Hedgerow Regulations, albeit only in the same way as a large number of enclosure period hedges in the UK lowlands. Whilst not species-rich, they have local value in terms of tree and scrub canopy, connectivity with the SNCI, and physical structure which provides shelter and foraging for fauna.
 - Hedgerows H2, H3 and H4 are also important under the Hedgerow Regulations. They have a coherent physical structure, but are not species-rich. When compared with HH2, HH7, H1 and H5, they have slightly lower value in terms of scrub and tree canopy and connectivity. H3 has greater number of species, connectivity and mature tree value than H2 and H5, but is more gappy at base level as you go eastwards from H1, hence it is not evaluated quite as highly as H1.
 - Historic field boundaries HH1, HH8 and hedgerow H6 have little ecological significance and are not important under the ecological criteria of the Hedgerow Regulations. Historic field boundary HH9 is now a private curtilage, hence is not covered by the Hedgerow Regulations. It is subsumed into a tree group, and has no ecological significance as hedgerow habitat, although contributes to green corridor connectivity.

Differences with Bristol Tree Forum

6.96 Bristol Tree Forum characterise all the hedges on site as being native and species-rich, and often "with trees" and sometimes also "associated with

ditch or bank". On this basis, they consider that almost all the hedgerows should be considered by the BNG Metric as being of "high" or "very high" distinctiveness.

- 6.97 I disagree with this and address the differences in detail at Chapter 10. In essence, my evidence, summarised above, is that most of the hedgerows are native, species-poor and not associated with a ditch or bank. We largely agree on which hedgerows are classed as being "with trees".
- 6.98 On this basis, it is correct to use the Defra metric 3.0 classes of "medium" or "low" distinctiveness to the hedges. I appreciate this sounds as if I am downplaying the value of the hedges within an SNCI, particularly given they have become overgrown and have a strong visual presence within the site, and form part of the reason for the SNCI designation. In the metric this is addressed by the "strategic significance" multiplier. Nevertheless, in terms of ecological survey criteria, the hedges are not of more than local value.

Description of Probable Impact

- 6.99 I address policy compliance at Chapter 9, but the following narrative describes for each hedge how the mitigation hierarchy has been applied in the illustrative masterplan.
- 6.100 Drawing 2 summarises the likely loss of hedgerows based on the parameter plan and the illustrative masterplan. It assumes a worst-case scenario, although it is noted that detailed design stages might allow retention of more sections of hedgerow than envisaged, depending on whether ground levels might enable use of low retaining walls for example.
- 6.101 For the discussion below, I recommend having my Drawings 1 and 2 and the DED^[50] to hand. Item 11 in the DED shows how a detailed appraisal of ecological factors related to hedgerows informed the design process.
- 6.102 <u>Hedgerow H1</u>: The hedgerow can be largely retained and incorporated into green infrastructure (GI), albeit with three breaks to allow adequate circulation (one vehicular, two non-vehicular). As this hedge completely traverses the width of the site, access to the west of the site would be impossible without some severance of this hedgerow. Design iterations have lessened fragmentation impacts upon this hedgerow by separating the southern access road into two sections either side of the hedgerow. Only the primary access passes through the most northerly section (H1c) which has been used as a field access since the 1940s and has suffered most past ground disturbance and loss of hedgerow shrub continuity.

⁵⁰ Appendix 2 to Charles Crawford's Proof of Evidence

- 6.103 <u>Hedgerow H2</u>: This hedgerow would be almost fully lost. Whilst some loss is required for circulation, the principal reason is for place-making. The hedgerow's orientation contrary to slope in combination with proximity to the required alignment of the main access road (determined to a substantial degree by levels) create substantial constraints to practical and viable design. Iterations were trialled retaining the category B tree central to the hedgerow (T9, a TPO tree). This fixed levels at grade in this location, resulting in substantial engineering works and undesirable engineering solutions to create development plots which in turn were suboptimal in respect of several design considerations. Given the need to create a satisfactory design with adequate plot sizes and the prevailing slope, hedgerow H2 including the central category B tree T9 cannot viably be retained.
- 6.104 <u>Hedgerow H3</u>: Some loss is inevitable given that the primary access road must pass through H3. Losses for circulation would be minimised by the orientation of the road using a relatively gappy section. Further losses of hedge base plants are presumed for place-making at 'the Green', to create a useable public open space and to deliver plot depths that satisfy the design coding. However, the mature tree canopy of the hedgerow within 'the Green' is identified for retention. There is currently little coherence of this section of hedgerow in terms of a central core and the scrub outgrowth which makes up the lower bulk of the hedgerow in this location would require substantial reduction or modification. Therefore, for the purposes of the EcIA and BNG assessments, loss of the hedgerow as a linear habitat feature was presumed as a reasonable worst-case approach.
- 6.105 Loss of the hedgerow across 'the Green' as a linear feature does not preclude retention of the mature tree canopy though (Group G27 and trees T20 and T21). It is possible that detailed design may enable retention of some existing hedgerow plants. Physical losses have been "targeted" at sections that minimise removal of trees and those which do require removal being category C trees.
- 6.106 <u>Hedgerow H4</u>: As for Hedgerow H2, the principal reason for loss is placemaking. Early iterations of the masterplan attempted retention of this hedgerow in its majority, but proximity to the overhead lines in the south renders much of the land between the hedge and overhead line easement and also between this hedge and hedgerow H3 problematic for development in consideration of factors including levels, traffic hierarchy, adequate circulation, turning circles, services and orientation (influencing solar gain and views). Capacity, circulation and place-making requirements could not therefore be met satisfactorily in layout iterations retaining hedgerow H4, even in iterations testing partial retention. The client and design team considered that harm from loss of H4 was outweighed by a combination of design and housing capacity benefits.

- 6.107 <u>Hedgerow H5</u>: TPO trees can be retained in the southern section of this hedgerow. However, considering the outgrown character of the hedgerow in this section associated with the TPO trees, levels and accessibility considerations, it was considered that substantial reduction or modification of the existing hedgerow section would be likely. Similar to H3, for the purposes of the Outline EcIA and Outline BNGA, loss of the linear hedgerow feature was presumed as a reasonable worst-case approach. Loss of the linear hedgerow feature does not preclude retention of canopy however and detailed design stages may be able to retain some hedgerow planting in an area that will form part of the site's GI. Inevitable losses are at the northern end of this hedgerow. These are required for circulation, to access the western development parcel, and for place-making, to create useable open space near the school. Whilst no loss is desirable, if loss is required, it is better that it takes place at the terminal end of a hedgerow.
- 6.108 <u>Hedgerow H6</u>: Loss is inevitable to create access into the site and accommodate appropriate visibility splays. This hedgerow is not "important" under the Hedgerow Regulations.
- 6.109 <u>Historic field boundary HH1</u>: Loss is assumed due to necessary changes in level to form the development platform. However, there will be sections that can be retained and incorporated into either GI or development boundary treatments. The boundary in this location comprises largely artificial features (fences and built structures) with outgrown scrub and occasional trees present within the site extending from the boundary southwards. Ecologically, this boundary is not currently considered to comprise linear hedgerow habitat i.e., it is not HPI.
- 6.110 <u>Historic field boundary HH2</u>: This would be retained and incorporated into GI.
- 6.111 <u>Historic field boundary HH7</u>: This would be retained and incorporated into the GI. If a piped drainage connection is required to link the SuDS to the small unnamed watercourse on the south boundary of the site, this can be delivered through "no-dig" drilling, avoiding the need for loss of vegetation.
- 6.112 <u>Historic field boundary HH8</u>: This can probably be retained as a vegetated boundary feature. Ecologically, this boundary is not currently considered to comprise linear hedgerow habitat.
- 6.113 <u>Historic field boundary HH9</u>: This would be retained and incorporated into the green corridor linking Brislington Meadows SNCI to Eastwood Farm.
- 6.114 The Council accepts that some hedgerow loss is inevitable given the need for adequate circulation. The Planning Committee Report states (in the section on Planning Balance and Conclusions:

Officers acknowledge that the allocation allows for the loss of some habitats, hedgerows and trees in order to facilitate the residential development of this site. It can be reasonably argued that all hedgerows cannot be practicably retained in situ as this would prevent adequate circulation around the site.

- 6.115 In relation to the hedgerows, I consider to be of the greatest significance that would be affected (H1 and H5), the proposed loss would be primarily for circulation.
- 6.116 The evidence of Mr Charles Crawford (note sections 4.5 and 5.2) is that losses or partial losses of other hedgerow which are important under the Hedgerow Regulations and currently have a strong coherent physical structure (i.e., H2, H3 and H4) are inevitable given the need for good place-making, creation of adequate plot sizes and depths, and creation of accessible walkways.
- 6.117 Whilst loss of hedges is a harm, the proposed scheme design has clearly made considerable effort to retain the most significant hedges and incorporate them into GI. If development were permitted, the parameters plans indicate there will be a near continuous framework of existing hedges or linear vegetation around the site and two main north-south linear hedgerows within the site.
- 6.118 The sloping nature of the site and the single point of primary access mean that retention of hedgerows, particularly those that run across the slope, is extremely difficult given the overall intention to deliver a development of a scale consistent with the allocation policy.
- 6.119 Minimisation of losses can be secured through a planning condition requiring submission of design details demonstrating measures to retain existing hedges and trees, along with an Arboricultural Method Statement, such as has been prepared for the points of access (see my Appendix E).
- 6.120 Compensation for loss of hedges can be delivered fully on-site, through creation of native species hedges in green infrastructure (GI), along with enhancement and management of retained hedgerows. The revised Outline BNGA (Appendix C) calculates a net gain on-site of 5.64^[51] hedgerow units. I appreciate that the loss of long-established and physically continuous hedges would not be replaced on a like-for-like basis by the proposed landscape scheme. Nevertheless, I note that the proposed GI would maintain and enhance east-west continuity along Historic field boundary HH7 which would be improved, compared to baseline, by the presence of the proposed SuDS.

⁵¹ Adjusted from the 'Headline Results' value for hedgerow net unit change – refer to explanation in Appendix C

- 6.121 The proposed GI would also maintain the north-south links provided by Hedgerows H1 and HH2/H5, and would result in an enhanced north-south link along the development's eastern boundary through planting of new hedges and lines of trees to link Bonville Road to Broomhill Road.
- 6.122 Finally, I note that during pre-application discussions with the Council, both prior to, and during Homes England's involvement, various illustrative masterplans were presented and discussed. Mr Connelly's evidence goes into detail (e.g., his paragraph 4.22), but I note that these schemes involved much more substantial hedgerow loss than the appeal scheme, and the Council did not draw attention to the need to retain specific hedges.

<u>Reasons for Refusal 1 (Loss of Biodiversity) and 2 (Failure to retain</u> <u>important hedgerows)</u>

- 6.123 The Planning Committee Report deals with this mainly under Key Issue B (Impact on Ecology, Habitats and Biodiversity) although hedgerow loss is briefly discussed under Key Issue C (Impact on Trees).
- 6.124 The Committee Report states: "*The proposed development has not identified mitigation and compensation measures for the loss of biodiversity on the site.*" In response, I note that the proposed development would result in a net gain in length of native hedgerows on site of c520m, and that the new hedgerows can be planted with a diverse mix of species that satisfy "species-rich" criteria. Hedgerow net gain on site would also be delivered through management and enhancement of retained hedgerows.
- 6.125 The Report notes the fact that several hedges are "important" under the Hedgerow Regulations. I note that the allocation policy does not define the criteria by which importance of hedgerows within the site should be assessed and does not cite the Hedgerow Regulations as a means of identifying importance for the purpose of policy compliance. The Hedgerow Regulations have the aim of restricting landowners from removing important hedgerows without the consent of the local authority, but do not apply to developments consented under Town and Country Planning legislation.
- 6.126 The Hedgerow Regulations and other systems for assessment and evaluation of hedges use criteria of antiquity, species-richness, species rarity, presence of trees, associated features, connectivity, integrity of structure and presence of species of conservation concern, and my evidence above has shown how a very full range of criteria (not limited to the Hedgerow Regulations) were used to establish the relative importance of hedgerows on site.

- 6.127 My evidence shows that the hedgerows on site date to the mid-late 18th century and were established under private enclosure agreements. It is not correct to apply the term "ancient" to the hedges on the site, as that term is for hedgerows that formed field boundaries pre-dating the enclosure period and its methods of hedge planting.
- 6.128 With the exception of the southern site boundary, which will be retained, the hedgerows on site are not classified as species-rich and do not have associated features such as ditches and banks.
- 6.129 In terms of all relevant assessment criteria, the hedges are similar in age and species composition to many other hedges in the British lowlands which would also be classed as important under the Hedgerow Regulations by virtue of their age and the presence of native bluebells in the ground flora. Most hedges on the Appeal Site have local value, contributing to the SNCI, by virtue of their robust structure and their connectivity, and I have set out their relative importance above.
- 6.130 Drawing 2 summarises the likely loss of hedgerows based on the parameter plan and the illustrative masterplan. It assumes a worst-case scenario, although it is noted that detailed design stages might allow retention of more sections of hedgerow than envisaged, depending on whether ground levels might enable use of low retaining walls for example.
- 6.131 The Council accepts (see Issue F: Planning Balance) that some hedgerow loss is inevitable given the need for adequate circulation. In relation to the hedges, I consider to be of the greatest significance that would be affected (H1 and H5), the majority of the proposed loss would be for circulation.
- 6.132 The evidence of Mr Charles Crawford is that losses of other hedgerow which are important under the Hedgerow Regulations and currently have a coherent physical structure (i.e., H2 and H4) would be inevitable given the need for good place-making, creation of adequate plot sizes and depths, and creation of accessible walkways. H3 would be subject to partial loss for circulation and housing. It can be retained in part and while its hedge base flora would be lost to create a small public open space, the tree canopy therein can be retained (G27).
- 6.133 Whilst this loss of hedges is a harm, the proposed scheme design has clearly made considerable effort to retain the most significant hedges and incorporate them into GI. The sloping nature of the site and the single point of primary access mean that retention of hedgerows, particularly those that run across the slope, is extremely difficult given the overall intention to deliver a development of a scale consistent with the allocation policy.
- 6.134 I must also note that the Planning Committee report cites comment 2.4 of the current Nature Conservation Officer's final response, namely

referencing the pre-application advice from a previous Nature Conservation Officer. 2.4 states:

<<Furthermore, Nature Conservation comments on the Pre-app for this site (19/05220/PREAPP) in 2019 contained the following: "The current proposal involves a significant loss of hedgerows including species-rich hedgerows shown on the constraints and opportunities plan and is not considered ideal from an ecological perspective. The findings of the ecological surveys should be used to inform the layout and design of the scheme". This pre-app advice does not appear to have been followed.>>

6.135 In response, that pre-application advice related to a wholly different layout and site boundary. That scheme predated Homes England's involvement and our ecological surveys. That scheme did not show any hedgerow retention, so it is inappropriate to apply this pre-application advice to the Appeal Scheme.

7.0 Biodiversity Net Gain

- 7.1 An Outline BNGA Report was submitted with the application, following Biodiversity Metric 3.0^[52]. The report also described how the development would implement biodiversity gain within the site, with an assessment against BNG good practice principles.
- 7.2 The Outline BNGA report and associated calculations were accepted as a technically accurate quantification of the on and offsite requirements. However, the Council has now confirmed its position that the site remains as SNCI.

Updated BNG Metric

- 7.3 Accordingly, TEP has updated the metric and associated report (see Appendix C). Chapter 3 summarises the results from the updated metric.
- 7.4 The principal change is that all existing habitats are now assigned a "high" strategic significance, where previously they were assigned "medium" significance, by virtue of being adjacent the SNCI.
- 7.5 All required hedgerow units can still be delivered on site. Hedgerow net gain on site would be 5.64 units (122%)^[53].
- 7.6 In terms of area-based habitats, the proposed development would result in an on-site loss of 16.88 units (net loss of 27.37%)^[53]. This takes into account the proposed habitat creation and enhancement measures.
- 7.7 The updated metric results in a small increase in the total number of habitat area units required offsite to achieve 10% BNG. In summary, to achieve 10% BNG and to satisfy trading rules, the following is required offsite:
 - Total: 23.05 habitat units; comprising habitats of medium or greater distinctiveness in the following broad types:
 - Grassland minimum 14.61 units (63% unit shortfall value)
 - Heathland and shrub minimum 8.37 units (36% unit shortfall value)
 - Woodland and forest minimum of 0.07 units (1% unit shortfall value)
- 7.8 In preparing the BNG assessment, TEP has taken a precautionary approach to avoid overstating the value of future habitats such as neutral grassland in the SuDS and urban trees in the residential areas.

⁵² CD1.22 Outline Biodiversity Net Gain Assessment (TEP Ref 7507.20.070 v4 April 2022)

⁵³ Adjusted from the 'Headline Results' value for hedgerow net unit change – refer to explanation in Appendix C

- 7.9 Homes England is committed to working with the Council to identify and fund an appropriate package of habitat enhancements within Bristol, ideally including the remaining Brislington Meadows SNCI. As the application is in outline and may be delivered in phases, the proposed planning condition^[54] sets out how the calculation of BNG can be carried out at the time of each reserved matters application.
- 7.10 The on-site approach to BNG is part of the scheme's approach to design as described at Chapter 5. It includes plot-specific habitat creation, planting and seeding mixes, using nectaring species for pollinators, translocation of bluebells, design of SuDS, detailed method statements for reducing impact to species, measures for breeding birds, swift, sparrow, swallow units, owl boxes, garden measures e.g., hedgehog highways and wildlife ramps. Living walls would be deployed on some elevations.
- 7.11 The Design Code provides a very strong framework on which detailed design would build, which can be used by the Council to secure these recommendations under condition.

Reason for Refusal 1 (Harm to Biodiversity)

- 7.12 The parameter plans provide certainty that there would be a considerable area of the site within which on-site BNG measures can be implemented. The appellant's illustrative masterplan has been drawn up in considerable detail to demonstrate that the assumptions made in the Outline BNGA calculations are realistic and deliverable, and also comply with allocation policy which requires provision for grassland, hedgerows and trees.
- 7.13 The Committee Report states in Issue F (Planning Balance): "It is not considered that the proposal makes adequate provision for mitigation and compensation measures for this ecological impact as there is no agreement in place between the applicant and the Council to secure any required offsite mitigation measures. This is not considered to comply with the development considerations for BSA1201, local plan policies or paragraphs of the NPPF"
- 7.14 The absence of a defined offsite BNG scheme at this stage cannot be argued as a reason for refusal of the planning application in these specific circumstances. As Mr Paul Connelly explains at his paragraphs 10.34 to 10.37, the terms of the land agreement between the Council and Homes England preclude detailed discussion in relation to offsite ecological mitigation with the Council until outline planning consent has been granted. Nevertheless, the allocation policy makes it clear that compensatory habitat creation should "make provision for mitigation and compensation measures including enhancement to the grazing land adjacent to Victory Park and compensation for the loss of semi-improved

⁵⁴ Proposed Condition 21

neutral grassland and damp grassland". Homes England has carried out feasibility studies which demonstrate that grassland, scrub and woodland enhancements are possible in this area.

- 7.15 I estimate that approximately half of the offsite BNG requirement noted above can be delivered on the adjoining SNCI, and Homes England is ready to draw up a detailed scheme in conjunction with the Council, should permission be granted.
- 7.16 Homes England aims to deliver any additional offsite requirements on land owned by the Council or its partners. The Council can be expected to act reasonably, should permission be granted, and enable offsite requirements to be delivered on its land, in accordance with the sale agreement and allocation policy.
- 7.17 In the event the Council does not facilitate such requirements, other opportunities to deliver offsite BNG are available to Homes England. The principle of offsite BNG, including if necessary on third party land and even outside the Council's administrative area, is an established approach and is entirely consistent with the BNG provisions of the Environment Act 2021 and the Biodiversity Metric

Reason for Refusal 5 (Lack of s106 agreement)

- 7.18 I refer to my comments above. In this case, the Council can have certainty that a scheme for ecological mitigation including BNG offsetting, is deliverable.
- 7.19 The detail submitted is considered to be appropriate for this outline planning stage. Further detail relating to detailed mitigation and BNG off setting measures are to be discussed and agreed with the Council and once details of landscaping are known at later design stages.

8.0 Protected and Priority Species

8.1 A comprehensive suite of species surveys was completed between 2020 and 2022. The scope of surveys was agreed with the Council during pre-application consultation.

Protected Species

- 8.2 The survey reports provide sufficient detail for a decision-maker to determine the application in compliance with legislation, taking account of what licences and planning conditions might be needed.
- 8.3 No European protected species are currently considered to be resident within the site. Surveys identified one old bat roost situated within a tree on the southern boundary. No mitigation licence in respect of roosting bats is anticipated to be required to facilitate the proposed development. As bats are mobile species and tree roosts are particularly dynamic, further surveys are recommended to support Reserved Matters applications that involve tree-felling or pruning to ascertain presence of tree roosts before any works actually commence.
- 8.4 There is no evidence of occupied active badger setts within the site. A disused badger sett is present within hedge H5. The Council's Nature Conservation Officer reports some recent sett-building signs in hedge H2, and an outlier sett is now confirmed by TEP, which is presumed to be at least sporadically occupied. Badgers have been observed on site, so it is likely the main sett is located reasonably near, albeit not within a distance where construction could affect its integrity (30m).
- 8.5 Numerous mammal trails and other field evidence is found across the site. These are attributed to deer, dogs and badgers. Grassland and extensive bramble scrub are generally suitable for badger foraging, albeit only limited areas of deeper thorny scrub are likely to be sufficiently secluded from dog disturbance to enable sett building.
- 8.6 Two setts are currently identified within the site one in H5 is disused and one in H2 is presumed active at least sporadically. Badgers are, however, a mobile species with seasonal variations in activity levels and behaviour. Recommendations in the Outline EcIA include ongoing monitoring of the site to determine sett status and any change in status or occupation of the setts on site and any other evidence of new occupation. Should monitoring evidence an active sett which cannot be avoided through detailed design, a licence in respect of badgers would then subsequently be required from Natural England prior to any development activities affecting any active sett. Recommendations also include retention of the disused sett within an appropriate setting with habitat connectivity, even in the event it remains unoccupied by badgers, as the below ground excavations would provide refuge opportunities for other wildlife.

- 8.7 Slow worms are resident within the site. Breeding was confirmed through survey and suitable winter habitat is present in the form of core hedgerow habitat (specifically, the 'centre line' of the original hedgerows, as blackthorn and bramble outgrowth offer limited winter refuge due to lack of below ground features such as crevices around roots) and meadow ant nests within the grasslands.
- 8.8 A precautionary estimate is of a medium size population, distributed across the majority of the site, although density of occupation is likely to vary. Slow worms are protected against killing or injury so measures are recommended in the Outline EcIA that will avoid risk of these impacts during earthworks and construction. A Natural England mitigation licence is not required.
- 8.9 The local range of slow worms will decline due to development, but given the adjoining allotments which provide many shelter and basking opportunities, and the remaining SNCI which contains hedges, scrub and grassland, it is reasonable to predict that the local slow worm population will persist.
- 8.10 No Schedule 1 birds were recorded nesting within the site, although peregrine was noted incidental to various ecology surveys in flight over the site or perching on the pylon. A moderate assemblage of nesting birds was confirmed within the site, typical of urban and semi-urban environments. Nesting birds are protected from disturbance and destruction of nests. Recommendations set in the Outline EcIA present avoidance measures to ensure legal compliance and compensatory measures to replace nesting habitat (through landscaping and provision of a range of nest boxes).
- 8.11 No other protected species for which licences might be required to provide derogation under the legislation affording their protection are currently confirmed to be present or identified as likely to be present.

Priority Species (Species of Principal Importance)

- 8.12 The following SPI would be affected by the development, with the impact assessment for these species set out in Section 5 of the Outline EcIA as follows:
 - Common toad see paragraph 5.43;
 - Slow worm see paragraph 5.43;
 - Passerine birds (dunnock, song thrush, house sparrow, greenfinch) see paragraph 5.45;
 - Small heath butterfly see paragraph 5.54;
 - Hedgehog see paragraph 5.60;

- Bats see EcIA paragraph 5.65.
- 8.13 Section 6 of the Outline EcIA provides a schedule of cross-cutting species and habitat conservation measures which would minimise the adverse effects of construction and operation and ensure that the habitats retained or created on the Appeal Site were conserved and enhanced. Connectivity for wildlife into and across the Appeal Site would be maintained.
- 8.14 Taking account of the on-site compensation and the offsite improvements in the adjoining SNCI that would be triggered by granting of permission in accordance with the allocation policy, this would be mean that all the SPI noted above would be conserved.

Other Species

8.15 Roe deer and red fox are present on site and in the wider area, including the SNCI. These species do not have specific nature conservation protection, but their visible presence is welcomed by most members of the public. I consider that roe deer would experience a contraction in local range due to loss of grassland but a population would remain in the area. I consider red fox are adaptable and their range would not experience any significant contraction.

Reason for Refusal 1 (Loss of Biodiversity)

- 8.16 The Committee Report (under Key Issue B) states that the "proposal is likely to result in multiple species displacement from the site due to extensive habitat loss. The Officer considers that this displacement would be likely to be permanent, as any habitat creation on or off-site postdevelopment will not adequately replicate that which is going to be lost and which is currently supporting species on site"
- 8.17 It also states "the time it would take for habitat mitigation and compensation to replace the 'full biomass and ecological function of such well-established habitat' is reason for objection, as in the interim of this site being developed and habitat creation measures being implemented, species such as breeding birds, badgers, bats, slow worms (all protected by the Wildlife and Countryside Act 1981, and The Conservation of Habitats and Species Regulations 2017), invertebrates, a high number of pollinators and others like deer and fox, will be permanently displaced from this site and Bristol will experience more wildlife decline"
- 8.18 It is impractical to think that any greenfield site could be developed without a degree of disturbance and displacement of the resident wildlife. However, the proposed development would not result in permanent displacement of the species noted from the whole of the Appeal Site.

- 8.19 Recommendations to reduce the effect of construction and operationalstage disturbance and displacement impacts are addressed in Section 6 of the Outline EcIA. This includes measures for retained habitats, for wildlife supported by retained habitats, and for habitats affected by the proposals. The EcIA has site-specific measures appropriate to each species of conservation concern.
- 8.20 A CEMP would be conditioned should planning consent be granted. The Outline EcIA recommends production of ecological mitigation and protection management plans be produced for each of the species or species groups that would be affected by the proposals, these to be produced individually or incorporated into the CEMP.
- 8.21 A substantial portion of the site (c45%) is identified for green infrastructure. The construction stage would result in removal of, or disturbance to, about half the existing hedgerows (see Drawing 2). However, a strong framework of vegetated field and site boundaries would be retained in situ around and within the site, with the majority of these proposed for enhancement, for example through species diversification.
- 8.22 Habitat connectivity and permeability for wildlife has also been considered by the EcIA. Measures recommended in Section 6 of the Outline EcIA to provide for wildlife within the new development include:
 - Minimising habitat loss and fragmentation through detailed design;
 - Phasing vegetation removal and planting, encouraging advanced planting, to lessen impact of necessary habitat losses;
 - Construction measures to protect retained habitats, avoid or lessen dust, noise and light disturbance;
 - Planting in earliest possible season within the development as soon as infrastructure allows (i.e., ensuring landscaping is not the last measure);
 - Using planting mixes that will offer seed, nut, pollen and nectar sources for foraging wildlife;
 - Creation of habitat refuge opportunities for invertebrates, amphibians, reptiles and hedgehogs (many of which would support other wildlife);
 - Installation of bird and bat boxes, bird roost habitat, habitat features the provide sources of bird nesting materials;
 - Establishing habitat buffers and links and diversifying structure and substrate diversity within green spaces;
 - Incorporation of permeability features such gaps in fences and wildlife ramps provide access up/down vertical step changes in levels where these may prevent a barrier to movement;

- Enhancing engineered structures where these may be required, such as creating living screens/walls associated with fences or retaining walls;
- Designing all but the most formal open spaces to maximise floral diversity for pollinators (i.e., flowering lawns) which in turn will provide forage for other wildlife, directly (predation) or indirectly (seed, fruit and nut sources of forage);
- Appropriate lighting design and light mitigation to avoid light disturbance within key ecological corridors (south and east boundaries) and other green links through the site (along retained and new hedgerows, for example).
- 8.23 Planning Conditions also include a Project Implementation Plan (PIP)^[55] which will ensure that, where feasible, habitat creation and enhancement measures would be established prior to commencement of development in any particular phase.
- 8.24 The Outline EcIA and Outline BNGA both confirm that offsetting will be required to deliver 10% BNG targets and also that Homes England is committed to delivering on these targets for this scheme (on and offsite). The development considerations for the allocation include ecological enhancement of grazing land to the south of the application site, adjacent to Victory Park. Discussion in principle has been held with the Council Parks Department to explore this opportunity. Enhancement would also substantially contribute towards maintaining local wildlife populations during construction, providing appropriate phasing and implementation programmes are adopted. These details would be secured as part of the BNG offsetting strategy, anticipated to be discussed and agreed with the Council and relevant stakeholders and secured through development control.
- 8.25 The Outline EcIA and Outline BNGA anticipate the production of a PIP to support future Reserved Matters application, secured by planning condition. This would cover delivery of on and offsite BNG implementation, including methods (landscape and planting details, soil preparation etc), targets (habitat types, habitat conditions, additional habitat features to be supplied etc), timescales (including phasing), roles and responsibilities.
- 8.26 Taken together, all these measures mean the construction stage would result in a contraction in range, but not a permanent displacement of any of the species cited by the Council.
- 8.27 At operational stage, there would be continuing pressures on retained wildlife arising from recreational disturbance and light pollution. The Outline EcIA addresses these through:

⁵⁵ Proposed Condition 23 – refer to planning condition schedule in Statement of Common Ground between appellant and Council

- Habitat creation measures in the green infrastructure;
- Measures to maintain permeability for wildlife movement in the developed areas;
- A Lighting Impact Assessment and Lighting Mitigation Strategy for hedges and woodland belts, to be provided for each Reserved Matters Application;
- A long-term Landscape and Ecological Management Plan (LEMP) for onsite habitats; this would also be a requirement under BNG policy and legislation.
- 8.28 Offsite enhancements in the remaining Brislington Meadows SNCI to comply with allocation policy and BNG requirements would also be accompanied by a long-term LEMP. This plan would include measures to create, maintain and enhance the features of the SNCI that support the life cycles of species affected by development on the Appeal Site; e.g., provision of dead-wood habitats, slow worm refugia, bat and bird boxes.
- 8.29 Any further offsite measures to deliver any residual BNG habitat requirements for grassland and scrub would also be subject to long-term management planning (set out in the LEMP). These would not mitigate or compensate for the local contraction in range of species at Brislington Meadows, but would improve conditions for invertebrates and birds at the place they were established.
9.0 Legislative and Policy Compliance

- 9.1 In the narrative below, I summarise my consideration of the policies as applied by the Council in support of RfR 1,2 and 3.
- 9.2 Appendix I contains an appraisal of how the Appeal Scheme responds to and complies with legislation and some strategies cited by objectors, but are not applied by the Council.

National Policy

NPPF 2021

9.3 The Committee report defends RfRs 1,2 and 3 by reference to the following paragraphs. My appraisal is set out below.

Paragraph 131

Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are treelined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newlyplanted trees, <u>and that existing trees are retained wherever possible.</u> Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.

9.4 The underlined clause above relates to the Tree Officer's narrative in the Committee Report's around Key Issue C (Impact on Trees). My evidence, articulated in chapter 6, is that retention of trees, particularly Category A trees and TPO trees, has been considered at all stages of design, and that losses are only such as are strictly necessary due to primary access, adequate circulation and place-making.

Paragraph 174

174: Planning policies and decisions should contribute to and enhance the natural and local environment by:

(a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

(*d*) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

- 9.5 Planning witnesses will present evidence on the application of this policy to the Appeal Site in terms of its status as SNCI and how this is addressed in the development plan.
- 9.6 The proposed development would harm the features of the Appeal Site that allowed it to be identified and designated as SNCI. This was "priced in" to the allocation policy. My evidence (set out at Chapter 4) is that the proposed development has followed the mitigation hierarchy and has minimised such harms through the retention and creation of a hedgerow and green corridor framework, along with creation of a landscape that incorporates grassland of high local value.
- 9.7 I note the design intention is that following development, it should be possible for the southern and eastern SuDS and green corridors to be reincorporated into the remaining Brislington SNCI – see my evidence at chapter 4.
- 9.8 The proposed development risks causing harm to the remaining SNCI. However, the proposed layout, secured through parameters plans, would provide a buffering habitat corridor along the northern edge of the remaining SNCI, and would maintain north-south ecological connectivity from Brislington Meadows SNCI to Eastwood Farm. Construction-stage controls and method statements for dealing with SPI and HPI would reduce harms to species that range across the SNCI. The Outline EcIA reports no residual additional harm to the remaining SNCI, other than the contraction in area that is priced in to the allocation.
- 9.9 Homes England has committed to delivering 10% biodiversity net gain for the proposed scheme. This would be by a combination of on and offsite measures. Details would be further agreed between Homes England and the Council at reserved matters stages. Nevertheless, the allocation policy requires that offsite measures should include enhancement of the remaining SNCI, notably of grasslands. Homes England will ensure that BNG contributions arising from the proposed development are directed towards this and expects the Council to act reasonably in implementing these enhancements.
- 9.10 As described at chapter 5, the proposed development has several measures to enhance biodiversity and create ecological networks within the layout. Future design stages will provide detail of these measures, but the Outline EcIA and Outline BNGA provide a framework against the design would accord to ensure the appropriate balance and provision of mitigation measures are delivered. Resilience of the network(s) will be protected by:
 - Increasing the woodland canopy connectivity in the corridor from Brislington Meadows SNCI to Eastwood Farm;
 - Ensuring choice of species and provenance for new tree planting is climate-proofed;

Managing the site through an Ecological Management Plan that includes mechanisms for responding to adverse recreational pressures, something that is not currently in place.

Paragraph 179

179: To protect and enhance biodiversity and geodiversity, plans should:

(a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and

(b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

9.11 Although cited by the Council in support of RfR1, this policy is concerned with plan-making, rather than decision-making. Nevertheless, in my commentary below on how the scheme responds to Local Plan policies, I address how the Appeal Scheme takes account of the features listed at NPPF 179 in light of how the Local Plan safeguards them and promotes their conservation and enhancement.

Paragraph 180a

180: When determining planning applications, local planning authorities should apply the following principles:

(a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

9.12 This policy requires adherence to the "mitigation hierarchy". Planning witnesses will address the locational requirements and need for the development to take place here, and how the site-specific allocation policy recognises the harms and seeks to mitigate and compensate for them. My evidence is concerned with the adequacy of mitigation and compensation for the harms.

Design

9.13 In chapter 5, I have summarised the iterative design process that has sought to reduce harms within the allocation. Design iterations, where relevant to ecology, are summarised in the Outline BNGA (paragraph 4.1) submitted with the application. Most of the iterations have been positive

for biodiversity. The iterative approach demonstrates the care in balancing weight applied to the various policy objectives relating to ecology, drainage, landscape, place-making, safety, accessibility, sustainability etc that are all relevant to a comprehensive masterplan.

9.14 My evidence at chapter 6 sets out how the most significant trees and hedgerows would be retained and incorporated into the parameters plans. Only where strictly necessary due to primary access, adequate circulation and place-making, would there be losses of the most significant trees or hedgerows.

On Site Mitigation, Compensation and Enhancement

- 9.15 The Outline EcIA, at Chapter 6 sets out detailed measures for mitigation of adverse impacts on ecological features (habitats and species), for both construction and operational stages.
- 9.16 The submitted application commits to 10% biodiversity net gain and confirms this would be delivered through a package of on and offsite compensation measures. The updated BNG metric (Appendix B) confirms the extent of compensation and enhancement that can be delivered on site.
- 9.17 New and/or enhanced habitats will be incorporated on site, such as utilising SUDS basins to enhance and enlarge the extent of wet grassland that has potential to become HPI and SNCI quality. New hedge planting would occur throughout, and the proposed scheme would establish a minimum 12m GI and wildlife corridor along the eastern part of the site. The effect of the on-site compensation would be a net gain in hedgerow units, based on the metric and its inherent temporal and spatial risk multipliers. Grassland losses can be partially compensated on site.
- 9.18 On-site compensatory measures for loss of features of value to species of conservation concern is described in the Outline EcIA at chapter 6.
- 9.19 On-site mitigation and compensation would be secured by planning condition and each reserved matters application would be required to present contemporary and detailed proposals for construction-stage protection, habitat creation and long-term habitat management.

Offsite Compensation and Enhancement

- 9.20 The BNG metric also sets out the requirements for offsite compensation and enhancement in terms of quantity, type and distinctiveness of habitats to be created or enhanced – see my evidence at chapter 7.
- 9.21 This will include grassland enhancement measures in the remaining SNCI, owned by the Council, in accordance with allocation policy. Homes England is committed to delivering this and provision for this is included in

the sale agreement as described by Mr Paul Connelly at his paragraph 9.50 onwards.

9.22 Any further offsite measures required to achieve compensation and enhancement to 10% net gain (which is over and above NPPF's current requirement) would be delivered by the Appellant in accordance with the proposed planning condition. If a reasonable agreement cannot be made regarding delivery on land owned by the Council or its partners, the Appellant can secure offsite BNG credits through biodiversity offset providers elsewhere.

Paragraph 180c

180(c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists;

- 9.23 The tree and ecological surveys confirmed there are no "ancient" trees on site. One veteran tree (T6) is present, and this would be retained.
- 9.24 Appendix D confirms the hedgerows were planted during the period of enclosures, probably in the mid to late 18th century. They cannot be considered as ancient woodland which is defined by reference to 1600 AD.
- 9.25 The Committee Report states they are "ancient hedgerows". As Appendix D notes, they do not pre-date the period of enclosures so I consider they fail to meet the Defra Habitat Action Plan definition of "ancient" hedges. Even if they did meet that definition, the Defra document is for the purpose of promoting good management of ancient and species-rich hedges and its definition is not carried into NPPF which does not use the term "ancient hedgerows", nor does it include hedgerows in its glossary which lists examples of what are considered to be "irreplaceable" habitats.
- 9.26 In response to the recent assertion by the Council that oak tree T5 is a veteran, while there may be slight differences of professional opinion on this, nevertheless it has always been agreed to be an important tree with full protection required for its Root Protection Area. I confirm that parameter plans are adjusted to show a slight expansion of this to accommodate a "no-disturbance" buffer zone concomitant with that required for a veteran tree of its dimension (see Mr Crawford's appendix with revised parameter plans).
- 9.27 In relation to the very recent assertions that there are veteran hawthorns on site, insufficient details were provided in time for me to examine the matter and respond prior to preparing this evidence. Thus, I reserve the right to provide rebuttal evidence after seeing the Council's detailed evidence on this matter.

Local Policy

Policy SA1: Allocation BSA1201

- 9.28 As evidenced by the summary and extracts presented at Appendix G, the 2008 SHLAA purposely included additional sites that were designated as Parks and Green Spaces and SNCIs which were previously excluded from the 2006 Housing and Land Availability Assessment. This included the proposed allocation of Site ST132 "Land at Broomhill", with an illustrative capacity of 961 (low) to 1098 (high) and which encompassed the majority of the Brislington Meadows SNCI designation. The 2009 SHLAA carried forward Site ST132 as Site SH0085 although covering a slightly reduced area with an illustrative capacity of 500. Although the proposed allocation reduced in area from the 2008 SHLAA, it comprised a larger area than the adopted allocation.
- 9.29 The 2013 Sustainability Appraisal Main Report (SA) identifies BSA1201 (Broom Hill) as a 'Super Major Allocation' with a capacity of up to 926 dwellings. This is at odds with the adopted allocation which presents a similar boundary to that identified by the 2013 SA but has an illustrative capacity of only 300. The 2013 SA contains a thorough assessment of potential impacts upon the Brislington Meadows SNCI under each option under consideration (employment, housing or no development). The assessment considered net loss of the SNCI (e.g., paragraph 4.91.4.1) as well as impact upon the remaining SNCI network, accounting for the SNCIs strategic position in that network (e.g. paragraph 4.91.4.2). The allocation was considered in the knowledge of likely impacts upon Species and Habitats of Principal Importance known to be supported by Brislington Meadows SNCI (e.g., paragraph 4.88.8.2).
- 9.30 The 2013 SA reduced the proposed allocation boundary, considering this in combination with the development considerations introduced as part of the Preferred Approach "to reduce the potential for negative effect from harm or net loss of SNCI land in the city, creating an implementation dependent effect on local ecology".
- 9.31 The adoption of Allocation BSA1201 was therefore made by the Council in full acknowledgement of the allocation site's ecological value and function. The development considerations were stated by the 2013 SA to "*effectively require compensation and mitigation to reprovide, offsite and nearby, the type of habitat which might be lost to development*". The development consideration requiring development to provide a green infrastructure link with Eastwood Farm Open Space in the north-east was introduced, as reported at paragraph 4.91.6.2 to "*assist in reducing potential negative effects of severe or loss of function and connectivity of green infrastructure in that area of the site*".

- 9.32 In Chapter 5 of my proof, I have given a detailed summary of how the design of the scheme has responded to the site-specific policies relevant to nature conservation and trees, namely, that development should:
 - be informed by an ecological survey of the site and make provision for mitigation and compensation measures, including enhancement to the grazing land adjacent to Victory Park and compensation for the loss of semi-improved neutral grassland and damp grassland;
 - retain or incorporate important trees and hedgerows within the development which will be identified by a tree survey; and
 - provide a green infrastructure link with Eastwood Farm Open Space to the north-east.
- 9.33 Trees and hedgerows have been subject to arboricultural, botanical, habitat and faunal surveys. Virtually all hedgerows are 'important' under the historical and/or wildlife criteria of the Hedgerow Regulations 1997. The allocation policy does not define "importance" by reference to Tree Preservation Orders or the Hedgerow Regulations, although these are factors in the identification of which are the most important trees and hedgerows to retain.
- 9.34 In chapter 6, I provide a detailed assessment of which trees and hedgerows I consider to be the most significant in terms of arboricultural and ecological value, starting from the basis that any losses would be categorised as undesirable in terms of the site-specific allocation policy and other development management policies that apply universally in the City.
- 9.35 In order to enable primary access, create adequate circulation and provide a design that meets high standards of place-making, it is not possible to retain all trees and hedgerows within the requirements of housing delivery under Site Allocation BSA1201.
- 9.36 In Chapter 6 I set out detailed evidence that the most significant trees and hedgerows would only be lost where strictly necessary following rigorous application of the mitigation hierarchy. The loss of TPO trees is minimised, and the most significant hedgerows would be retained in the parameters plans, accepting some local losses for primary access, circulation and place-making.
- 9.37 In relation to tree and hedgerow loss, provisions for mitigation and compensation measures are described in the Outline EcIA and BNGA reports submitted.
- 9.38 There have been no changes in local policy since the allocation.
- 9.39 In my view, the proposed development parameters and the illustrative masterplan comply with allocation policy. Ecological and arboricultural features and policies that were known about at the time of allocation and

which are present on site today have been identified through appropriate contemporary survey provided in the Outline EcIA. Protections for valued ecological and arboricultural features are put in place and the mitigation hierarchy has been followed.

- 9.40 The EcIA provides a framework for securing mitigation and compensation measures on and offsite. Detailing of these measures, delivery and post-development safeguarding will be secured through development control. The allocation clearly envisaged development would result in on-site harm to nature conservation interest and wildlife connectivity. Development considerations specifically provide for "offsite or nearby" compensatory measures, for which and minimum delivery parameters have been set by the outline application.
- 9.41 I turn now to the core strategy and development management policies which must also apply to the Appeal Scheme, notwithstanding its allocation.

Policy BCS9 - Green Infrastructure.

"The integrity and connectivity of the strategic green infrastructure network will be maintained, protected and enhanced. Opportunities to extend the coverage and connectivity of the existing strategic green infrastructure network should be taken"

- 9.42 Core Strategy Diagram 4.9.1 shows (in "key diagram" style), the strategic GI network, including a strategic green infrastructure link that runs through the remaining Brislington Meadows SNCI and connects to the River Avon corridor east of Brislington.
- 9.43 The proposed development would not directly affect this GI link. Nevertheless the parameters plans and the ecological mitigation and compensation works on and off site should ensure that the Appeal Site continues to offer a supporting role to this link. This can be achieved through consideration of the next part of the policy BCS9:

"Individual green assets should be retained wherever possible and integrated into new development. Loss of green infrastructure will only be acceptable where it is allowed for as part of an adopted Development Plan Document or is necessary, on balance, to achieve the policy aims of the Core Strategy. Appropriate mitigation of the lost green infrastructure assets will be required; Development should incorporate new and/or enhanced green infrastructure of an appropriate type, standard and size. Where on-site provision of green infrastructure is not possible, contributions will be sought to make appropriate provision for green infrastructure off site...".

9.44 The site is subject to a number of physical constraints including geology and topography, access and overhead powerlines. The proposed scheme

has been subject to iterative design throughout an extensive preapplication and community engagement process, with independent review by Design West.

- 9.45 Design iterations throughout the design stage overseen by LDA Design on behalf of Homes England have, where relevant to ecology, been summarised in the Outline BNGA (paragraph 4.1) submitted with the application. Most of the iterations have been positive for biodiversity. The iterative approach demonstrates the care in balancing weight applied to the various policy objectives relating to ecology, drainage, landscape, place-making, safety, accessibility, sustainability etc that are all relevant to a comprehensive masterplan. Fundamentally, Site Allocation Policy BSA1201 allocates the site for development for housing, with an estimated 300 homes, and explicitly includes "provision for habitat loss and compensation measures", referring to offsite enhancement and compensation.
- 9.46 The iterative design approach and the submitted illustrative design solution for the proposed scheme in the form of the Parameter Plans, on a site allocated for housing within the adopted development plan, is thus in keeping with Policy BCS9, which specifically states "Loss of green infrastructure will only be acceptable where it is allowed for as part of an adopted Development Plan Document or is necessary, on balance, to achieve the policy aims of the Core Strategy".
- 9.47 New and/or enhanced GI features have been incorporated within the site, such as utilising SUDS basins to enhance and enlarge the extent of wet grassland with the objective to attain M23a grassland. New hedge planting has been initiated along the eastern boundary of the site approaching Broomhill Road and the proposed scheme would establish a minimum 12m GI and wildlife corridor along the eastern part of the site, compliant with policy, not least BSA1201, DM17 and DM19.
- 9.48 While detailed proposals for biodiversity mitigation and compensation are not practical at this Outline stage, the submitted application commits to 10% biodiversity net gain and confirms this would be delivered through a comprehensive package of on and offsite measures which are still to be discussed and agreed with the Council. Requirement for a full BNG assessment and strategy for delivering the proposed mitigation at detailed design stage would be secured by planning condition^[56].
- 9.49 The habitat creation scheme would contribute to grassland and woodland opportunity areas shown for the site on the West of England Nature Network map.

⁵⁶ Proposed conditions 21 (BNG Assessment) and 22 (BNG Strategy)

9.50 Part of Policy BCS9 considers effects on SNCI designations. I do not address this as this is covered by the site-specific allocation policy.

Where development would have an impact on the Bristol Wildlife Network it should ensure that the integrity of the network is maintained or strengthened

9.51 The associated text for BCS9 explains that the application of policy relating to the Bristol Wildlife Network (BWN) will be updated by allocation-specific and development management policies in the later DPD. Maps of the BWN are held by the Bristol Environmental Records Centre and are shown in the ecological desk study^[57]. On site, the BWN includes areas not covered by the SNCI designation, notably the woodland corridor adjacent the demolished Sinnott House that would be affected by the primary access from Broomhill Road. I address this in my analysis of DM19 below.

Policy DM15 (Green Infrastructure Provision)

9.52 Charles Crawford's evidence provides a full narrative on how the Appeal Scheme addresses this policy. Nevertheless, I consider the aspect relating to management of existing trees.

The provision of additional and/or improved management of existing trees will be expected as part of the landscape treatment of new development

- 9.53 The Outline AIA sets out recommendations for protection and management of retained trees during construction. My Appendix E presents an Arboricultural Method Statement and Tree Protection Plan (AMS/TPP) for trees at the points of access.
- 9.54 A planning condition will require submission and agreement of an AMS/TPP for each phase of development, and reserved matters applications will require submission of landscape and habitat creation details that incorporate retained trees and demonstrate how their canopy and root protection areas would be managed in accordance with best practice and relevant British Standards.
- 9.55 The Outline EcIA includes (at Section 6) various measures for ecological management of retained trees, such as retention and creation of dead wood habitats, installation of bat boxes and measures that will ensure mature trees become veteran trees.
- 9.56 Planning conditions will also require the submission and agreement of an Ecological Management Plan for the site's green infrastructure, including a range of measures as outlined in the EcIA.

⁵⁷ CD1.21(a): Outline EcIA Ecological Technical Appendix A: Ecological Desk Study (TEP Ref 7507.20.039v2)

Policy DM17 (Development involving existing green infrastructure) -Tree loss

- 9.57 In accordance with Policy DM17 the development would not result in the loss of ancient woodland, aged trees or veteran trees. 'Aged trees' does not have a universally recognised meaning. It is defined here by the Site Allocations and Development Management Policies document itself rather than by reference to NPPF, which does define ancient woodland and veteran trees.
- 9.58 It is taken from the context and similarity of definition that 'aged' can be regarded as equivalent in meaning and application to 'ancient' as defined by NPPF. There is one veteran tree on site (Tree T6 identified in the submitted Arboricultural Impact Assessment) and this would be retained and fully protected.
- 9.59 In response to the very recent assertion by the Council regarding veteran trees, I refer to my comments at paragraph 5.12 above and will provide rebuttal evidence after seeing the Council's detailed evidence on this matter.
- 9.60 The illustrative masterplan has been informed by detailed tree surveys to BS5837, and the final layout will be resolved at reserved matters to integrate important existing trees where possible. Where tree removal is essential, such as for reasons of topography, access and drainage, there is capacity to plant replacement trees according to the offsetting metric in DMP Policy DM17, which is based on trunk diameter. Measurements have been taken and trees counted, in order to allow mitigation to be designed once the layout has been finalised (see Appendix F). This outcome can be secured via detailed design and the discharge of reserved matters and/or planning agreement/s.
- 9.61 The proposed removal of trees does not preclude the grant of planning permission. I note that DM17 does not explicitly refer to protection of hedgerows.

Policy DM19 (Development and Nature Conservation)

"Development which would be likely to have any impact upon habitat, species or features which contribute to nature conservation in Bristol will be expected to "be designed and sited, in so far as practicably and viably possible, to avoid any harm to identified habitats, species and features of importance"

9.62 My analysis of the BSA1201 Allocation Policy and BCS9 Green Infrastructure policy summarises the process of iterative design and application of the biodiversity mitigation hierarchy. The Outline EcIA identifies all the relevant habitats, species and features; and sets out proposals for their retention in the context of the specific requirements of the allocation policy. Harms are avoided as far as possible through the parameters plans, with the illustrative masterplan providing confidence that avoidance can be delivered.

"Take opportunities to connect any identified on-site habitats, species or features to nearby corridors in the Wildlife Network."

9.63 My analysis of the above policies shows how the retained hedgerow network, and the eastern green corridor would remain connected to the remaining SNCI and the green corridor that links the SNCI to Eastwood Farm. The latter green corridor would be enhanced, compared to baseline, by the addition of a more continuous woodland canopy.

"Where loss of nature conservation value would arise development will be expected to provide mitigation on-site and where this is not possible provide mitigation off-site."

- 9.64 Again, my analysis of the above policies set out how mitigation and compensation would be delivered on site. The allocation policy envisages that not all mitigation and compensation can be delivered on site and includes specific provisions for enhancement of the remaining SNCI as part of the package of required measures.
- 9.65 This policy pre-dates the widespread national application of BNG approaches. The Council does not have adopted policy regarding BNG. Homes England is committed to delivering 10% BNG. The submitted BNG metric sets out detailed requirements for offsite compensation and enhancement in terms of quantity, type and distinctiveness of habitats to be created or enhanced see my evidence at chapter 7.
- 9.66 I refer to my paragraph 5.43 above which addresses offsite compensation and enhancement.

"Development on or adjacent to sites of nature conservation value will be expected to enhance the site's nature conservation value through the design and placement of any green infrastructure provided".

9.67 I consider this policy in relation to the remaining SNCI at Brislington Meadows. As set out in chapter 4 of my evidence, the parameters plans ensure that built development would be separated from the SNCI by a wide buffer zone which will include grasslands, SuDS, hedges and woodlands. The eastern green corridor would also be secured at a minimum 12m width, often much more, with a reasonably continuous woodland canopy in order to protect wildlife connectivity to Eastwood Farm.

10.0 Responses to Consultations, Objections and Reasons for Refusal

10.1 This chapter responds to objections from consultees that relate to ecology and arboriculture.

Bristol Tree Forum [representing a consortium of local groups]

10.2 BTF's objection to the planning application is dated 13th July and covers 7 topics:

1: The Historical Environment

10.3 This objection relates to non-designated heritage assets which is not my competence. However, some of the objection includes statements regarding hedgerow age and possible presence of ridge and furrow that suggests an ancient origin for the hedgerow system. My Appendix D shows that this is not the case, and the hedgerows were established in the mid to late 18th century as a private (rather than Parliamentary) enclosure.

2: SNCI Status

- 10.4 Planning witnesses will address how the SNCI designation should be considered in the decision-making process. I address the issue at Chapter 4 of my proof. Appendix C of my proof contains an updated Outline EcIA and BNGA which proceed on the basis that the SNCI designation remains in place, without prejudice to the appellant's position on how the SNCI designation is to be considered.
- 10.5 My analysis of Policy DM19 in chapter 9 of my evidence discusses how the appeal scheme would avoid harm to the nature conservation value of the remaining SNCI.

3: Site Access

- 10.6 Appendix E contains an Arboricultural Method Statement and Tree Protection Plan for the primary access road from Broomhill Road into the main body of the site. As BTF note, this part of the site is not designated as SNCI but is part of the BWN, by virtue of being identified as a wildlife corridor.
- 10.7 Loss of vegetation is unavoidable here given the location of the primary access. In pre-application discussions^[58], the Council advised a minimum

⁵⁸ CD1.21(a): Outline EcIA Technical Appendix A Desk-Based Assessment, refer to paragraphs 3.54 and 3.55 and Annex A

width of 10m, with up to 20m preferred. The minimum width on parameters plans is 12m. The retained vegetation would be subject to streetlighting, but a Lighting Mitigation Plan can be secured by condition to minimise light levels and avoid direct illumination of canopy.

- 10.8 Mr Charles Crawford's evidence discusses the design iteration process for this area.
- 10.9 My analysis of compliance with policy DM19 shows that whilst there would be an impact on the current extent of vegetation at the access point, the wildlife connectivity can be maintained, and the Appeal Scheme will improve the connectivity of this green corridor in the section alongside Bonville Road.

4: Bristol Tree Replacement Standard

- 10.10 Appendix F supplies the detail sought by BTF, as is summarised in my evidence at 6.30. This includes a 1:1 allowance for replacement of individual trees of diameter below 15cm, which is greater than strictly required.
- 10.11 I estimate some 250 individual trees would be required to meet the BTRS, but the precise number would be calculated for each Reserved Matters application. I consider it would be possible to deploy all the required trees on site, but it is also possible for the developer and the Council to discuss the final species selection and agree that for design reasons it might, for example, be preferable to deploy a smaller number of larger canopy trees on site, with the remaining requirement deployed elsewhere in the city.
- 10.12 The BTRS requirement is based on a count of individual stems within tree groups and woodlands, but on top of this, any areas of scrub or woodland are separately included in the BNG metric as "habitat areas". Thus, there is no question of compensatory tree planting "falling between the cracks" of the different ecological and Arboricultural methods for quantifying replacement requirements.

5: Hedgerows

- 10.13 There is a significant difference between ourselves and BTF on the categorisation of hedgerows. BTF categorise all as being native and species-rich, some "with trees" and some also "with ditches/banks". Their hedgerow table is at Appendix 8 of their main objection.
- 10.14 My detailed analysis at Chapter 6^[59] of my evidence, is that, following Defra Hedgerow Survey guidance and the UKBAP definition of species-rich hedges, all are species-poor and the presence of banks does not meet

⁵⁹ Refer to text from paragraph 6.64 onwards

survey criteria. I think the difference is because BTF define speciesrichness on the basis of the total number of woody species in the whole hedge, whereas JNCC survey protocols require sampling to be carried out in 30m sections, at a ratio of 1 sample per 100m. TEP's hedgerow survey applied this method.

- 10.15 Table 3 below enables the BTF hedgerow references to be compared against data gathered by TEP's hedgerow survey and habitat survey target notes (TN's). This can also be compared with Drawing 2 to see which hedgerows would be affected by the proposed development.
- 10.16 In some cases, BTF "hedges" are classed by TEP's habitat survey as being scrub habitats, rather than linear features, due to the original hedgerow having become gappy and infilled with scrub, or having expanded outwards to become scrub and/or woodland.

ТЕР			BTF		IMPACT
ID Ref	UKHab Classification	Description	ID Ref	Categorisation	
H1 (a,b,c)	Hedgerow (priority habitat)	Native species poor hedgerow with trees. H1a = 3 woody spp. Ground flora includes Lords-and-Ladies, bluebell. H1b =2 woody spp. H1c = 5 woody spp (4spp living). Ground flora includes Lords-and-Ladies	BTF03 BTF11	Native species rich hedgerow with trees	Part removal: Primary street part removes H1c. Minor losses in H1a and H1b for widening pedestrian/cycle access, focussed on existing gaps
H2 (a,b)	Hedgerow (priority habitat)	Native species poor hedgerow with trees. Averages 3 woody spp (3spp living). Ground flora includes Lords-and-Ladies, bluebell, wood avens	BTF04	Native species rich hedgerow with trees associated with ditch or bank	Majority removal. Small section retained at north where this joins south end of H5
H3 (a,b)	Hedgerow (priority habitat)	Native species poor hedgerow with trees. Average 4.5 woody spp. Ground flora includes Lords-and-ladies, bluebell, wood avens.	BTF08	Native species rich hedgerow with trees associated with ditch or bank	Part removal for access. Within proposed green space, hedge shrubs likely to be removed but TPO trees would be retained.
H4 (a,b)	Hedgerow (priority habitat)	Native species poor hedgerow. Average 4.5 woody spp. Ground flora includes bluebell, wood avens.	BTF10	Native species rich hedgerow with trees associated with ditch or bank	Majority removal. Small section retained at north where this joins H1.
H5	Hedgerow (priority habitat)	Native species poor hedgerow. Average 4 woody spp. Ground flora includes bluebell, Lords-and-Ladies, herb-robert.	BTF05A	Native species rich hedgerow with trees	Removal, although TPO trees are to be retained and detailed design may preserve a section of hedge by the TPO
H6	Hedgerow (priority habitat)	Native Species poor hedgerow. Average 2 woody spp. Below minimum length (30m) for Hedgerow Regulations assessment.	BTF13	Native species rich hedgerow with trees	Removal

Table 3: Cross-comparison of TEP and BTF hedgerow referencing and categorisation

TEP			BTF		IMPACT
ID Ref	UKHab Classification	Description	ID Ref	Categorisation	
HH2	Blackthorn scrub	Deep dense belt of blackthorn has subsumed original hedgerow (hazel and thorn). Single mature ash.	BTF05	Native species rich hedgerow with trees	Retention
HH7	Bramble scrub and mixed scrub.	Woody central line component estimated >5m wide;	BTF01	Native species rich hedgerow with trees	Retention
	Woodland adjacent inc offsite bank	Ground flora (TN24) includes wood avens, bluebell (not though that F4 contains bluebell in sward)	BTF02	Native species rich hedgerow with trees associated with ditch or bank	Retention
HH8	Blackthorn and bramble scrub, other woodland, broadleaved	Northeast section borders track behind properties on Belroyal Avenue. Low bund with trees, woody scrub and bramble. Fly tipping and garden waste.	BTF09	Native species rich hedgerow with trees	Part removal
HH9 (TN30)	Bramble scrub (in line of trees)	Bramble scrub dominant, with tree line on boundary. Excluded from Hedgerow Regulations assessment due to location bounding private gardens.	BTF12	Native species rich hedgerow with trees	Retained on boundary alongside green corridor
(TN28)	Bramble scrub, blackthorn scrub and mixed scrub	Security fence (weldmesh) on boundary. Scattered trees (several dead elms) present, larger ones tend to be on the school side.	BTF07	Native species rich hedgerow with trees	Scrub lost but all trees/groups except G24 to be retained
(TN29)	Bramble scrub	School security fence on northwest section with narrow belt of scrub and scattered trees - largest trees on school side.	BTF09	Native species rich hedgerow with trees	Scrub lost but all trees/groups except G30/31 to be retained.
-	Bramble scrub	Fenced boundary with allotments and outgrown scrub	BTF06	Native species rich hedgerow with trees	Retention

- 10.17 I note that hedgerow H5 has trees associated with it which are offset from the line of the hedge, so it would not be classed as "with trees". Field Boundary HH7 (the southern field boundary) was assessed as woodland and scrub, rather than being subject to hedgerow sampling. Based on target notes, it is possible that sampling might reveal the hedgerow at the core of this habitat to be species-rich. HH7 would in any event be retained.
- 10.18 Having assessed the BTF representation, I remain confident that the EcIA is sound and the updated BNG applies the correct distinctiveness category to the hedges on site.

6: Biodiversity Net Gain Analysis

- 10.19 The updated BNG metric accounting for SNCI status is at Appendix C and headlines are summarised at Chapter 7 of my evidence. It is appropriate to continue using Metric 3.0 rather than switch to 3.1.
- 10.20 In terms of urban trees, I am confident that the calculations used for baseline conditions and proposed landscape are robust and do not present an over-optimistic estimate of future canopy size. In any case, planning conditions would require submission of an updated BNG metric and BTRS calculation at reserved matters stages, based on an agreed layout and landscape.

7: BNG Guidance (need for management plan)

- 10.21 The LEMP would be secured through condition^[60]. BTF suggest that a management plan be provided at this stage. I contend that the Parameters Plans, the Illustrative Masterplan, the Design Code and the recommendations of the Outline EcIA all provide a consistent weight of information about how the retained and newly-created habitats on site would be managed, so that it is not necessary for a 30-year management plan to be provided at this stage.
- 10.22 BTF's Statement of Case covers ecological and arboricultural matters.

9.1: SNCI Designation

10.23 Refer to my paragraph 10.4.

9.2: Pricing In

10.24 The matters raised relate to application of planning policy, considered by others.

⁶⁰ Proposed Planning Condition 24

9.3: BSA1201 Criteria

- 10.25 Refer to my evidence at Chapter 5 of how the Appeal Scheme responds to the Allocation Policy.
- 10.26 The BTF's specific points regarding the BNG metric are addressed in my narrative above at 10.19.

Avon Wildlife Trust.

- 10.27 The Trust's objections in respect of SNCI status, loss of habitat, access to nature and the Bristol Ecological Emergency are matters of planning policy and balance.
- 10.28 The Trust notes the loss of grassland and advises that, if permission is granted, that construction-stage controls are applied to limit effects on wildlife and ensure as much habitat as possible is created on site to maintain the ecosystem services that the habitats currently provide.
- 10.29 My evidence, particularly at chapter 5 and 7 is that the Appeal Scheme has responded to the Allocation Policy in a manner consistent with the Trust's advice, although I accept they consider insufficient habitat is retained and/or created in the Appeal Scheme.

RSPB Local Group (found in objection by R Carmier)

10.30 The objections of the group in respect of SNCI status, irreplaceability and the Bristol Ecological Emergency are generally matters of planning policy and balance, rather than technical points on specific ecological features of the site itself.

Save Brislington Meadows Group (found in objection by D Matthews)

10.31 The objections of the group in respect of SNCI status, the planning balance and the climate emergency are generally matters of planning policy and balance, rather than technical points on specific ecological features of the site itself.

Greater Brislington Together (found in objection by D Matthews)

10.32 Refer to my comments for Save Brislington Meadows.

Other Individuals

10.33 Members of the public have objected. Many coincide with the written objections of BTF, Avon Wildlife Trust and RSPB noted above. I have

looked through all the other objections. Many make general reference to impacts on wildlife, sometimes by reference to groupings of species e.g., bats, butterflies. The Outline EcIA and my evidence, particularly at chapters 5,6 and 8, address these concerns, demonstrating that Homes England has carried out surveys and has detailed proposals for mitigation and compensation.

10.34 I address two of the public objections below (using surnames and initials) which raise very specific challenges to the ecological surveys and/or proposed mitigation/compensation for species of conservation concern.

D. Priest

- 10.35 Drawing 2 of my evidence pulls together the estimated habitat and hedgerow losses associated with the parameter plans. My Appendix C provides an updated Outline BNGA on the basis that the site is SNCI and the headlines are summarised at Chapter 7 of my evidence.
- 10.36 Bluebells are legally protected from commercial exploitation, rather than development. Nevertheless, the Outline EcIA recognises their value and contains provisions for protection of bluebells in situ for many hedges and for translocation of bluebells from areas to be developed. I have supervised successful bluebell translocation schemes so am confident this is a satisfactory application of the mitigation hierarchy.
- 10.37 My evidence at Chapter 6 (supported by Appendix D) addresses the origin of hedgerows and confirms the term "ancient" is not appropriate.
- 10.38 The invertebrate interest is of "vice-county" status and has been correctly assessed in the EcIA.
- 10.39 The bat surveys remain in date for the purpose of planning determination. The main bat roost and activity surveys took place in 2020 and 2021. Appendix B contains a November 2022 update which confirms the survey findings are still valid and that one new tree roost feature has been recognised in a hawthorn that can be retained. If removal is required, the tree would be subject to the precautionary inspections that would be secured under planning condition[61].
- 10.40 Offsite BNG delivery will be secured by Homes England. This will include measures on the remaining SNCI, as per allocation policy and the sale agreement with the Council. Additional compensation and enhancement measures to achieve 10% net gain could be deployed on land owned by the Council and its partners elsewhere in the City. In the event that the Council does not facilitate this, the Appellant would be able to make adequate arrangements with third party habitat providers.

⁶¹ Proposed Planning Conditions 19 and 20

10.41 The principle of offsite BNG, including if necessary on third party land and even outside the Council's administrative area, is entirely consistent with the BNG provisions of the Environment Act 2021 and the Biodiversity Metric.

<u>B Gray</u>

10.42 As Gray notes, kestrel do not breed on site. The proposed development would not result in loss of potential kestrel nesting sites. The reduction in area of rough grassland would reduce the small mammal population on site and reduce the mass of prey for birds of prey. Some mitigation and compensation for this would occur via the phasing of development and the creation of the wetland meadows on site and the enhancement of neighbouring land. The delivery of 10% grassland net gain would eventually result in a net increase of small mammals, although it is appreciated that some of this will not be on or immediately adjacent site.

11.0 Summary and Conclusions

Baseline Assessment

- 11.1 A full suite of ecological and arboricultural surveys has been carried out between 2019 and 2022. The findings of these surveys were accepted by the Council as a sound evidence base for ecological and arboricultural impact assessments, along with calculation of biodiversity net gain requirements on and off site.
- 11.2 The Council has recently asserted that there are there are additional veteran trees, these being oak tree T5 on the site boundary and 11 hawthorns in hedgerows internal to the site. Due to the late and (at the time of drafting this evidence) incomplete disclosure of the Council's evidence on this point, I reserve my position on this matter and will address it in the two week period allowed for rebuttals.

Design Process and Mitigation Hierarchy

- 11.3 Ecological and arboricultural considerations have been at the centre of planning and design of the proposed development. National and Local Plan policies pertaining to SNCI's, the allocation itself, and trees and other features of the natural environment have had a very significant influence in design.
- 11.4 Whilst this is an outline application, Homes England has recognised the strength of policy and local concerns relating to trees, hedgerows and species. This has meant a rigorous application of the mitigation hierarchy when making decisions on layout and circulation. Homes England's objective is to present an illustrative layout that confirms deliverability of housing in accordance with the allocation's estimate of 300 units, and the specific wording in the allocation policy relating to tree and nature conservation matters.
- 11.5 The design team has adopted the following approach to retention and incorporation of trees, hedgerows and other ecological features:
 - Make strongest efforts to retain and incorporate all trees and hedgerows into the layout.
 - As the principal access from Broomhill Road requires loss of woodland trees, align the route to retain the widest possible belt of trees east of the road, thus maintaining a green corridor at least 10m wide.
 - Where losses of hedgerow are needed for adequate internal circulation, avoid removal of trees and use gaps in hedgerows, or where lateral scrub colonisation from the hedgerow is thinner.
 - Unless absolutely necessary, no grade A trees should be removed, and demonstrate adequate root protection areas for all retained trees.

- Given the site's relatively steep topography and the need to create platforms for road and drainage infrastructure and create plots that meet high standards of place-making and design, where hedgerows require removal, there should be a clear demonstration of the need for, and benefits of, such removal.
- Parameter plans and ecological assessment at this stage should be based on a "worst-case assessment" of vegetation loss. Reserved matters applications would allow for further design iteration and implementation of special construction methods to retain vegetation.
- 11.6 The process of design iteration is described in the evidence of Mr Charles Crawford. His evidence also demonstrates that more hedgerows and trees would be retained than on pre-application masterplans that the Council were aware of.
- 11.7 TEP's ecological and arboricultural experts advised on the characteristics of each tree and hedge, and the specific values each could provide to the future green infrastructure of the site, as can be seen in the Design Evolution Document appended to Mr Crawford's proof of evidence.
- 11.8 My detailed evidence sets out how the proposed development, including the illustrative layout, is comprehensively thought-through and responds fully to the range of ecological and arboricultural policy protections applying to the site.

Ecological Impact Assessment

11.9 The Outline EcIA^[62], as updated by recent surveys^[63] provides a thorough and detailed framework for evaluation of the site, assessment of impacts and provision of mitigation and compensation measures, to ensure the development accords with NPPF, the site allocation policy and wider City Development Management Policies and Homes England's commitment to 10% Biodiversity Net Gain. My evidence at chapter 5 summarises the avoidance, mitigation, compensation and enhancement measures that would be secured for the scheme through proposed planning conditions 19 to 24.

Grasslands

11.10 Under the UKHab classification system about half the grassland is classed as g3 (neutral grassland) and half as g4 (modified grassland). g3 is of

⁶² CD1.21: Outline Ecological Impact Assessment

⁶³ See Appendix C for November 2022 update to EcIA and Appendix H for a statement of impacts, mitigation and compensation and enhancement.

greater nature conservation value than g4. However, no grassland on the site is a UK habitat of principal importance^[64].

- 11.11 Almost all the grassland would be lost under any development scenario. The illustrative masterplan and parameters plans allow for the re-creation of neutral grassland and marshy grassland, particularly in the SuDS areas and in the proposed southern and eastern green corridors. Grassland seeding mixes appropriate to the adjoining Brislington Meadows SNCI would be used. A LEMP would maintain the intended nature conservation value.
- 11.12 Net loss of grassland is accepted in the allocation policy. Some mitigation and compensation is deliverable on site. The revised Outline BNGA (Appendix C) identifies that 14.61 offsite grassland units would be required to ensure a 10% net gain. Part would be delivered through enhancement of grassland in the remaining Brislington Meadows SNCI in accordance with allocation policy and the sale agreement between Homes England and the Council.
- 11.13 I discuss the process of securing grassland and other biodiversity net gains later.

Trees

- 11.14 The Outline AIA has been carried out in accordance with BS5837:2012. The field boundary hedgerows are overgrown and have experienced lateral scrub colonisation. They are assessed as tree groups, rather than as hedgerows.
- 11.15 Veteran oak tree T6, on the southern boundary would be retained and a full buffer zone around it can be protected extending to 15 times the stem diameter, with no changes in level. This is shown on parameters plans. If a piped drainage connection to Brislington Brook is required, this can be achieved using no-dig technology. The Council asserts its neighbour oak tree T5 to be a veteran. It has always been recognised as a grade A tree with a large root protection requirement, and I confirm that parameters plans can be amended to demonstrate an undisturbed buffer zone concomitant with veteran status.
- 11.16 Parameter plans confirm that no Grade A tree features would be lost to development, and all can be incorporated into the layout with adequate root and canopy protection.
- 11.17 In response to a request from the Council's Tree Officer, TEP prepared a detailed Arboricultural Method Statement and Tree Protection Plan (AMS/TPP) for the access from Broomhill Road and the full cycleway

⁶⁴ i.e. HPI priority habitat under S41 of the NERC Act, 2006

connection to School Road^[65]. This demonstrates that a functioning woodland belt can be retained east of the proposed access road in accordance with allocation policy requirements.

- 11.18 To assist the inquiry, Drawing 1 shows the confirmed and probable tree retentions and losses for both the detailed and reserved matters areas.
- 11.19 Tree Preservation Order 1404 includes 16 individual trees, 3 groups of trees and 1 woodland. Based on the illustrative masterplan, three TPO trees would require removal, one as an unavoidable consequence of the access from Broomhill Road. These three trees are grade B under BS5837, and thus do not fall into the category of the most important trees for retention. Whilst loss of TPO trees is undesirable, the amenity provided by the TPO as a whole can be sustained and replacement trees would be provided in accordance with the Bristol Tree Replacement Standard (BTRS).
- 11.20 Using the BTRS, ca 162 stems would be lost across the whole scheme, of which 146 are small diameter (<30cm) growing in groups. 250 replacement trees would be required^[66]. The BTRS encourages retention of larger trees that have established habitat and carbon-storage and landscape value.
- 11.21 All replacement trees could be delivered on site in areas of green infrastructure, public open space and the street scene, without counting trees in private gardens, desirable as they are.
- 11.22 Thus, I conclude that the proposed scheme accords with allocation policy and general development management policies pertaining to important trees.
- 11.23 I note I will respond to the Council's evidence on veteran hawthorns in the rebuttal period.

Hedgerows and Field Boundaries

- 11.24 The approach to hedgerow conservation is perhaps the most contentious aspect of the ecological assessment. In my detailed evidence at Chapter 6, I deal with this in the following steps:
 - Nomenclature
 - Assessment of Importance
 - Description of Probable Impact and Mitigation

⁶⁵ See my Appendix E

⁶⁶ See my Appendix F

11.25 I summarise my findings and conclusions below:

Nomenclature:

11.26 I have consolidated the impact assessment for hedges into Drawing 2, which shows location, hedge reference and probable impact. Numbering follows the ecological assessment (H1 to H6) and other historic field boundaries are labelled as Historic Hedgerows HH1, HH2, HH7,8,9. BTF hedge references are shown.

Assessment of Value

- 11.27 All hedgerows on site are classed as HPI under S41 of the NERC, which encompasses almost all native species hedgerows in England.
- 11.28 Most hedgerows on site are shown on tithe maps from the 1840s and thus are important under archaeology criterion 5a of the Hedgerow Regulations 1997.
- 11.29 Archival research^[67] demonstrates the hedges are 18th century enclosureperiod hedges. There is no evidence that the hedges on site formed part of an earlier field pattern that was subsumed into an enclosure field pattern. Thus, TEP's heritage specialists do not consider the term "ancient" should be applied to hedgerows of the appeal site.
- 11.30 In considering the relative importance of the field boundaries, all are "important" in terms of the Hedgerow Regulations criteria but only in the same way as all other enclosure hedges planted in the 18th and early 19th centuries across the British lowlands. The intent of the Hedgerow Regulations is to restrict the ability of landowners to remove important hedges. Given the prevalence of enclosure period hedges, it is not unusual for planning permission to be granted that involves removal of such hedges.
- 11.31 Ecological surveys allow a more fine-grained assessment of the relative importance of hedgerows on site.
- 11.32 Most are important under wildlife criterion 6.1a of the Hedgerow Regulations, due to the presence of native bluebell, a Schedule 8 plant species which is protected from commercial exploitation.
- 11.33 This criterion of importance is held in common with many UK hedgerows and in ecological terms, is not typically considered to be of great weight in planning decisions. Ecological value of hedgerows is assessed using a range of factors:
 - Hedgerow Shrub and Tree Species Richness;

⁶⁷ See my Appendix D

- Hedgerow Shrub and Tree Species Distinctiveness and Rarity;
- Hedgerow Ground Flora Diversity and Rarity;
- Presence of "associated features";
- Connectivity;
- Presence of Trees and Scrub;
- Integrity (structure and gappiness);
- Faunal value (invertebrates and bats);
- Period of development as habitat including disturbance.

Taking all the above factors into account, I consider that:

- Historic field boundaries HH2 and HH7, along with hedgerows H1 and H5 are of the greatest significance within the appeal site.
- Hedgerows H2, H3 and H4 are also important under the Hedgerow Regulations. They have a coherent physical structure, but when compared with HH2, HH7, H1 and H5, they have slightly lower value in terms of scrub and tree canopy and connectivity.
- Historic field boundaries HH1, HH8 and hedgerow H6 have little ecological or historic significance.

Probable Impact and Mitigation

- 11.34 Drawing 2 summarises the likely loss of hedgerows based on the parameter plan and the illustrative masterplan. It assumes a worst-case scenario, although detailed design stages might allow retention of more sections of hedgerow than envisaged. A hedge-by-hedge impact assessment, including rationale for losses and proposed mitigation is provided at chapter 6. In summary:
 - Overall length the total in the Appeal Site being 1,564m
 - Shown in Red Length that is presumed lost for access, circulation or earthworks required for place-making – the total estimated at **430m**. This loss is almost all in the outline area. However, to implement the Illustrative Masterplan, as described in the DED, these losses would be inevitable as a consequence of the required earthworks.
 - Shown in Brown Length that would probably be lost, based on the submitted parameters plans and the Illustrative Masterplan, but at detailed design stages, it might be possible to retain some sections of hedge if finished ground levels are suitable and/or retaining structures can be accommodated this total estimated at 277m
 - Shown in Green Length that would definitely be retained under the parameters plans being 856m.
 - Length of replacement hedges is estimated at 1,050m

- 11.35 The Council accepts that some hedgerow loss is inevitable given the need for adequate circulation. In relation to the hedges, I consider to be of the greatest significance that would be affected (H1 and H5), the majority of the proposed loss would be for circulation. H1 would be almost fully retained, apart from a break necessary for the primary street and two smaller breaks for non-vehicular access, targeted at existing gaps.
- 11.36 Mr Crawford's evidence, notably the DED, is that losses of other hedgerow which are important under the Hedgerow Regulations and currently have a strong coherent physical structure (i.e., H2, H3 and H4) are essential given the need for good place-making, creation of adequate plot sizes and depths, and creation of accessible walkways.
- 11.37 Whilst this loss of hedges is a harm, the proposed scheme design has clearly made considerable effort to retain the most significant hedges and incorporate them into GI. The sloping nature of the site and the single point of primary access mean that retention of hedgerows, particularly those that run across the slope, is extremely difficult given the overall intention to deliver a development of a scale consistent with the allocation policy.
- 11.38 Minimisation of losses can be secured through a planning condition requiring submission of design details demonstrating measures to retain existing hedges and trees, along with an Arboricultural Method Statement.
- 11.39 Compensation for loss of hedges can be delivered fully on-site, through creation of native species hedges in GI and public open spaces, along with enhancement and mana retained hedgerows. The revised Outline BNGA (Appendix C) calculates a net gain of 5.64 hedgerow units (122% net gain).
- 11.40 I appreciate that the loss of long-established and physically continuous hedges would not be replaced on a like-for-like basis by the proposed landscape scheme. Nevertheless, I note that the proposed GI would maintain east-west continuity along Historic Hedgerow HH7 which would be enhanced, compared to baseline, by the presence of the proposed SuDS. The proposed GI would also maintain the important north-south links provided by Hedgerows H1 and HH2/H5, and would result in an enhanced north-south link along the development's eastern boundary through planting of new hedges and lines of trees to link Bonville Road to Broomhill Road. The important mature hawthorns, especially in G1, would be covered by the LEMP which would protect their veteran characteristics and enable a supply of future veterans.

Site of Nature Conservation Interest

11.41 TEP's assessment is that the appeal site would meet Bristol City Council criteria for selection of SNCI's. During the survey and design process, we

were advised by Council officers that the SNCI designation had been deregistered for the allocation boundary. It has only recently come to our attention that de-registration has not occurred, although Development Management policy protecting SNCI's would not apply to this planning application.

- 11.42 Nevertheless, the policy still applies to the remaining part of Brislington Meadows SNCI. There would be no direct impact from the proposed development on the SNCI. Construction-stage method statements would be required, under planning condition, to prevent indirect adverse effects.
- 11.43 Homes England's intention, should permission be granted, is to offer a financial contribution to the Council to enable enhancement of the remaining SNCI, as part of the BNG measures. TEP has visited the SNCI and confirms that a grassland enhancement package of works, along with scrub and woodland management and new planting of native trees, shrubs or orchard species are all valid interventions that could add to the value of the SNCI.
- 11.44 I also consider that the 2.52ha of onsite habitats on southern and eastern boundaries^[68], shown for retention on parameters plans, would be of a suitable composition and condition to be eligible to be (re)incorporated into the SNCI on completion of development.

Biodiversity Net Gain

- 11.45 An Outline BNGA was provided^[69], using metric 3.0. Now the Council has expressed a firm view that the site is designated as SNCI, TEP has updated the Outline BNGA^[70]. Existing habitats in the part of the allocation that is SNCI are now assigned a "high" strategic significance, where previously they were assigned "medium" significance.
- 11.46 The update results in a small increase in the total number of habitat area units required offsite to achieve 10% BNG. All required hedgerow units can still be delivered on site.
- 11.47 In preparing the Outline BNGA, TEP has taken a precautionary approach to avoid overstating the value of future on-site habitats such as neutral grassland in the SuDS and urban trees in the residential areas.
- 11.48 To achieve 10% BNG for the illustrative masterplan, the following is required offsite:
 - Total: 23.05 habitat units; comprising habitats of medium or greater distinctiveness in the following broad types:

⁶⁸ Refer to paragraph 4.21 of my proof of evidence

⁶⁹ CD1.22: Outline Biodiversity Net Gain Assessment (TEP Ref 7507.20.070v4)

⁷⁰ Refer to my Appendix C

- Grassland 14.61 units
- Heathland and shrub 8.37 units
- Woodland and forest 0.07 units
- 11.49 Homes England is committed to working with the Council to identify and fund an appropriate package of habitat enhancements within Bristol, ideally including the remaining Brislington Meadows SNCI. The allocation policy and the sale agreement envisage enhancements to the SNCI, including but not necessarily limited to grassland enhancement to grazing land at Victory Park. The sale agreement precludes the Council from engaging in discussions about this prior to grant of planning permission so a detailed scheme cannot currently be drawn up.
- 11.50 TEP's initial estimate is that at least half of the offsite BNG requirement noted above can be delivered on the adjoining SNCI.
- 11.51 Homes England aims to deliver any additional offsite requirements on land owned by the Council or its partners. The Council can be expected to act reasonably, should permission be granted, and enable offsite requirements to be delivered on its land, in accordance with the sale agreement.
- 11.52 In the event the Council does not facilitate such requirements, other opportunities to deliver offsite BNG are available to Homes England. The principle of offsite BNG, including if necessary on third party land and even outside the Council's administrative area, is entirely consistent with the BNG provisions of the Environment Act 2021 and the Biodiversity Metric.
- 11.53 As the application is in outline and may be delivered in phases, the proposed planning conditions 21, 22, and 23 set out how the calculation of BNG can be carried out at the time of each reserved matters application.
- 11.54 Beyond the policy and (future) statutory requirement for BNG, the design of the proposed development would incorporate features that enhance biodiversity within and around development plots, with examples included in the Outline EcIA (section 6).

Species Protection and Displacement

- 11.55 The EcIA notes the following protected or priority species using the site:
 - Bats (foraging and commuting)
 - Badger
 - Slow worm
 - Invertebrate assemblage
 - Breeding bird assemblage

- 11.56 On the basis of best available information, a Natural England licence would not be required in respect of "European" protected species. GCN and dormouse are absent. Bat roosting is not currently known in trees likely to be felled. Nevertheless, planning conditions require provision of updated surveys associated with each reserved matters application. In the event a bat roost is found in a tree requiring felling, an appropriate method statement can be drawn up and a licence obtained, with provision of alternative habitat features.
- 11.57 A sensitive lighting strategy (SLS) is proposed to ensure the woodland belt along the southern boundary is not subject to light spill that might displace bat foraging and commuting.
- 11.58 Badger activity is known. Pathways are known and there is evidence of occasional foraging and commuting, with some outlier setts that may be occasionally active. In the event of occupied setts confirmed to be within or influenced by a construction zone, a Natural England licence can be obtained to exclude badgers from the construction zone. The licence is granted for welfare purposes so humane methods of temporary or permanent exclusion are required, along with provision of alternative setts if a regularly occupied sett requires permanent removal.
- 11.59 Slow worm (protected reptile) is known. A Construction-stage method statement is proposed, to ensure that individual animals are humanely captured and released in a receptor area. This can be secured through a planning condition.
- 11.60 The Council considers that the above species would be permanently displaced and that the extent of displacement is inconsistent with the allocation policy. My evidence is that there would be a temporary displacement, but with the proposed enhancements to the remaining SNCI that would be triggered by the granting of consent, complete displacement from the local area would be unlikely.

Reason for Refusal 1 (Harm to Biodiversity)

- 11.61 This scheme would result in harms to biodiversity, and this was foreseen when the site was allocated. However the harms are less than what might have been expected for an allocation for an estimated 300 homes on a site of acknowledged nature conservation interest. When the proposed design, mitigation, compensation, enhancement, management and 10% net gain measures are taken into account, the proposed scheme is a better outcome for biodiversity than was foreseeable from this allocation and is also a better outcome than current development management policy could secure.
- 11.62 Significant harms to SNCI status and grassland value were foreseen at allocation. Nevertheless, the design of the scheme would retain some 45%

of the site as green infrastructure, of which about 2.5 hectares would be habitat of such value that it could be re-incorporated into the SNCI.

- 11.63 Some loss of hedgerow and trees was foreseen at allocation. Nevertheless, the design of the scheme enables retention of at least 55% of existing hedgerows and former field boundaries, and the great majority of existing mature trees. Replacement planting would ensure net gains on site in terms of length of native species-rich hedgerow and number of individual broadleaf trees.
- 11.64 Displacement of fauna and flora was foreseeable for this allocation. Taking account of construction-stage mitigation and compensation measures, long-term habitat management and offsite enhancement; fauna and flora of local or national conservation value would undergo a contraction in range, but conservation of their populations is predicted.
- 11.65 The on-site measures can be secured through parameters plans and the planning conditions which provide for a dynamic process of survey, assessment, mitigation and monitoring that ensures each reserved matters application is subject to design and mitigation measures that reduce harm and provide for net gain of 10% measured against the national biodiversity metric.
- 11.66 Contributions for offsite habitat enhancement would be deployed on Council-owned land at Brislington Meadows SNCI and elsewhere in the City, in accordance with the allocation policy and the sale agreement. In the event that the Council does not facilitate this, the appellant would be able to make adequate arrangements with third party habitat providers. Thus the Inspector can be assured that compensation and net gain in terms of habitats and trees would be delivered on and off site.

Reason for Refusal 2 (Failure to retain important trees and hedgerows)

- 11.67 The allocation policy does not set criteria for identification of important hedgerows and trees. It does not tie itself to the Hedgerow Regulations or Tree Preservation Orders, which in my view is correct as these instruments have different purposes than required for a full assessment of relative ecological and arboricultural importance in a development context.
- 11.68 A full suite of surveys have been carried out to help in the assessment of hedgerows and trees. The DED^[1] and the evidence of Mr Crawford shows that retention of hedges and trees has been a primary driver of design, but that despite that, some losses are strictly necessary for access, circulation and place-making purposes, in the context of allocation of the site for an estimated 300 homes.

11.69 The Council appears to recognise that losses of hedgerow and trees for access and circulation are an inevitable consequence of the allocation. I consider that partial losses of hedges H1, H3 and H5 fall into this category. The essential difference between the Council's and Appellant's position seems to me to relate to hedges H2 and H4 and the two TPO trees therein, which are in the outline application area. My evidence is that these hedges have lower value in terms of connectivity to the SNCI and the green corridor network than hedges H1, H3 and H5 and the trees are Category B under BS5837:2012.

Reason for Refusal 3 (Effect on irreplaceable features):

- 11.70 The Committee Report and various representations refer to "ancient hedges". This is not a term used in NPPF when listing examples of irreplaceable habitats. The evidence of TEP's heritage experts is that the hedges are from the 18th century enclosure period and are not part of an earlier field system. There is no ecological field evidence of an older or ancient origin for the hedges.
- 11.71 The southern site boundary contains two mature oaks T5 and T6 which are recognised by the Appellant's and/or the Council's witness to be veteran, nevertheless it is common ground that these are valuable trees to be afforded the fullest extent of protection necessary. Accordingly the submitted parameter plans can be amended to extend the undisturbed buffer zone around T5 slightly to meet the requirements of relevant Standing Guidance for veteran trees (i.e. a buffer zone diameter 15 times the stem diameter).
- 11.72 Although not discussed in the Committee Report, the Council has now advised it considers there to be veteran hawthorns in some hedgerows in the reserved matters area. Given the late and (at the time of writing this evidence) incomplete evidence the Council has produced on this, I reserve my position and will respond during the period allowed for rebuttals.

Reason for Refusal 5 (Delivery of ecological mitigation)

- 11.73 The absence of a defined offsite BNG scheme at this stage cannot be argued as a reason for refusal of the planning application in these specific circumstances.
- 11.74 Whilst this is primarily a planning matter, I note the Appellant's clear commitment to delivering a 10% BNG, to include offsite compensation for grassland losses in the adjoining SNCI, owned by the Council and in accordance with allocation policy that states "*make provision for mitigation and compensation measures including enhancement to the grazing land*

adjacent to Victory Park and compensation for the loss of semi-improved neutral grassland and damp grassland".

- 11.75 Additional compensation and enhancement measures to achieve 10% net gain could be deployed on land owned by the Council and its partners elsewhere in the City. In the event that the Council does not facilitate this, the Appellant would be able to make adequate arrangements with third party habitat providers.
- 11.76 The principle of offsite BNG, including if necessary on third party land and even outside the Council's administrative area, is entirely consistent with the BNG provisions of the Environment Act 2021 and the Biodiversity Metric.

Overall Conclusion

- 11.77 My evidence shows that the Proposed Development is sensitively and comprehensively designed in response to the important ecological and arboricultural features of the Site, as set out in the site-specific Allocation Policy (BSA1201). I show how the mitigation hierarchy has been followed.
- 11.78 There will be a net loss of biodiversity and arboricultural value on site, as was anticipated when the site was allocated. Nevertheless, development in accordance with the submitted parameter plans will retain and create a green infrastructure framework on Site that would have beneficial ecological and arboricultural value.
- 11.79 Harms to the remaining Brislington Meadows SNCI will be avoided. Harms to protected and priority species will be acceptably minimised and mitigated. Although there will be a reduction in range for some species, provision can be made within the site for habitats for protected and priority species. I describe why the habitats on site should not be regarded as "irreplaceable" in terms of the meaning given to that term by NPPF.
- 11.80 Compensatory and enhancement measures responding to necessary losses of grassland, trees and hedgerows would be delivered on and off site, to ensure long-term net gains for biodiversity and arboriculture, securing 10% BNG and tree replacement in accordance with national and local policy. During the planning application Homes England has engaged with the Council seeking an agreement to ensure that contributions for offsite habitat enhancement would be deployed on Council-owned land at Brislington Meadows SNCI and elsewhere in the City, in accordance with the allocation policy. In the event that the Council does not facilitate this, the Appellant would be able to make adequate arrangements with third party habitat providers.

11.81 The principle of offsite BNG, including if necessary on third party land and even outside the Council's administrative area, is consistent with the BNG provisions of the Environment Act 2021 and the Biodiversity Metric.

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