

Brislington Meadows - Technical Response Note – Ecology and Arboriculture

Project	Brislington Meadows	Author	Rachel Roberts, Amir Bassir, Angus Blankenstein
Date	06/10/22	Checked	Francis Hesketh
Doc Ref	7507.43.001	Approved	Francis Hesketh
Version	1.0	Purpose	Appellant's response to BCC ecology and arboriculture officers' objections

1.0 Ecology

- 1.1 The Nature Conservation Response from the Council does not dispute the technical scope nor conclusions of the Ecology Impact Assessment (EclA) (or any of the suite of accompanying technical appendices reports). The Council's response also does not dispute the calculations of the BNG report or Biodiversity Metric 3.0.
- 1.2 The Nature Conservation Response accepts that the site "is no longer formally identified in the Bristol Wildlife Network as an SNCI" but – as concluded by the EclA report (e.g. para 5.3) – "still forms an important green space for wildlife and ecological connectivity in Bristol".
- 1.3 The ecology objections raised are based largely on the scale of habitat loss and the resulting loss or local exclusion of biomass based on the anticipated establishment timescales for onsite habitat compensation and offsetting measures.
- 1.4 The Nature Conservation Response sets out a number of local and national policies and standards against which it is claimed that the proposal does not align. Taking these in turn, in respect of ecology:

Policy BCS9 - Green Infrastructure.

- 1.5 The policy states: *"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..."*
- 1.6 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 pre-application and community

engagement process, and two independent reviews (Design West and Building with Nature).

- 1.7 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 BNG report (para 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 indicative capacity for 300 homes, and explicitly makes provision for habitat loss and compensation.
- 1.8 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”*.
- 1.9 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.
- 1.10 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.

Bristol Biodiversity Action Plan - Habitats of Principal Importance (HPI).

- 1.11 Extensive botanical and habitat surveys have been completed at the site across two seasons. These have concluded the only HPI present within the site are the hedgerows. The iterative scheme design has sought to retain hedgerows where practical and viable and where important to retain green links and connections. However, some loss is inherent in the allocation of the site for development for c. 300 homes and other overriding constraints including topography, access and highways requirements mean it is not possible to retain all hedgerows. Hedgerow removal and retention priorities have been informed to the fullest extent possible by arboricultural and ecological surveys. Ecological mitigation is required for hedgerow replacement on site and the outline BNG report identifies where opportunities lie within the illustrative masterplan. The BNG calculations conclude net gains for hedgerows well over the 10% target would be feasible. In total, the EclA estimates that through

retention and replacement hedgerow planting, this would result in a net total of 725m in hedgerows within the site (delivering net gain).

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

- 1.12 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, as is the case for ancient woodland and veteran trees. 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.
- 1.13 The illustrative layout of development has been informed by detailed tree surveys 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. This outcome can be secured via detailed design and the discharge of reserved matters and/or planning agreement/s.
- 1.14 The proposed removal of trees does not preclude the grant of planning permission.

Policy DM19 (Development and Nature Conservation) - Design.

- 1.15 The Policy states: *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"*
- 1.16 See paragraphs 1.5 to 1.10 relating to iterative design and application of the biodiversity mitigation hierarchy.

Policy DM19 (Development and Nature Conservation) - Loss of nature conservation value.

- 1.17 The Policy notes that development is expected to provide mitigation on-site, and where this is not possible, mitigation is to be provided off-site.
- 1.18 The submitted EclA details the reasonable worst case effects predicted to arise as a consequence of the proposed scheme and determines the necessary provisions that would be required to deliver appropriate and proportionate mitigation. The EclA and outline BNG reports conclude offsite mitigation and offsetting is required for habitats and species to avoid no net loss and deliver a 10% BNG commitment for the scheme. Details of on and offsite mitigation and compensation that accord with the strategy

provided at outline stage would be anticipated to be produced for the Reserved Matters applications and discussed with the Council and this would be secured by condition of the Outline Consent, if granted.

The Hedgerows Regulations 1997

- 1.19 TEP's Ecological Impact Assessment concluded that the hedgerows are of importance under the Regulations. However, that in itself does not preclude granting of planning permission.

BSA1201 "development should: retain or incorporate important trees and hedgerows within the development which will be identified by a tree survey"

- 1.20 Trees and hedgerows have been subject to tree survey in addition to botanical and habitat survey. All hedgerows were assessed to be 'important' under the wildlife criteria of the Hedgerow Regulations 1997. However, it is not practical or viable to retain all important hedgerows within the requirements of housing delivery under Site Allocation BSA1201. The mitigation hierarchy has been applied to hedgerow loss/retention decision making and appropriate provisions for mitigation and compensation measures are described in the EcIA and outline BNG reports submitted.

Activities contained within the Ecological Emergency Action Plan

- 1.21 The Ecological Desk Study (Technical Appendix A, Ref 7507.20.039v2) summarises the objectives of the Council's Ecological Emergency Strategy and the cross-themed Ecological Emergency Action Plan. These are strategic documents and neither are explicitly focussed upon the impacts of development or development control measures. Of the four key goals, three might be considered to have some overlap with development control:
- *30% of land in Bristol to be managed for the benefit of wildlife:* within the site, an area approximating 45% of the net area would be put to green space. While the majority will be multifunctional (i.e. not solely focussed on wildlife objectives), it and adjacent land uses would be designed to ensure the GI provision is functional and beneficial for wildlife. Additional offsetting would be required which would be designed and managed solely for the benefit of wildlife.
 - *Reduce use of pesticides in Bristol by at least 50%:* Future management plans adopted for on and offsite habitats delivered by the scheme could be agreed to adopt this measure.
 - *Waterways to have excellent water quality which supports healthy wildlife:* the proposed scheme incorporates an extensive SUDS that will protect water quality and flows of downstream watercourses.

NPPF 2021. Planning policies and decisions should contribute to and enhance the natural and local environment by... minimising impacts on and providing net gains for biodiversity

- 1.22 The above responses summarise how the iterative design process and the mitigation hierarchy has been applied. Homes England has committed to delivering 10% biodiversity net gain for the proposed scheme. The EclA and outline BNG assessment conclude this would be by a combination of on and offsite measures. This would be further agreed between Homes England and the Council at reserved matters stages.
- 1.23 Future design stages will provide detail of these measures, but the outline EclA and BNG provide a framework against the design would accord to ensure the appropriate balance and provision of mitigation measures are delivered.
- 1.24 In conclusion, while there is an objection on the grounds of ecological harm, the detail of the objection is not expressly the mitigation or offsetting proposed by the outline EclA and BNG. It is a matter of the detail submitted at the outline stage for the mitigation and offsetting that would be delivered. The Nature Conservation Officer's Response states the *proposal "does not yet contain proposals to adequately replace them [habitats and species lost or displaced]"*. In essence, this appears to be a contention with the level of detail submitted for the outline stage, more so than an objection to the proposed scheme.
- 1.25 The detail submitted is considered to be appropriate for this outline planning stage, as was scoped and agreed with officers during pre-application discussions. 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 further design stage. We note that this approach has been considered acceptable in respect of other outline applications determined by the Council, such as redevelopment of Hengrove Leisure Park, Hengrove Way, Bristol (LPA Ref. 21/00531/P). A condition was added to that consent which states:
- Prior to the commencement of development an updated Biodiversity Net Gain, (BNG), Assessment undertaken using Biodiversity Metric 3.0 Calculation Tool, based on a updated ecological survey of the site and the detailed scheme that is submitted through Reserved Matters, shall be submitted and approved in writing by the Local Planning Authority. The BNG shall include detailed proposals to redress loss of biodiversity to ensure there is no net loss in BNG and shall be informed by the recommended measures set out in the Ecological Assessment produced by Tyler Grange dated 27th January 2021*
- 1.26 Regarding the claim by the Council that the hedgerows are 'ancient' and contain 'irreplaceable habitat (ancient trees)', this is not substantiated by ecological data. The tree and ecological surveys carried out have confirmed there are no "ancient" trees on site. One veteran tree (T6) is present, and this would be retained.
- 1.27 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.

- 1.28 There is little ground flora typical of long-established woodland in the hedge bases. The invertebrate survey recorded almost no species associated with species-rich hedges and no species associated with ancient hedges¹.
- 1.29 Neglect of the hedgerows (lack of cutting or laying and lack of encouraging tree replacement) is the largest likely contributing factor for the majority of field boundaries having changed from hedgerows into lines of trees or outgrown scrub and development of gaps (within the original hedgerow line).
- 1.30 The tree survey looked at trees within and bordering the site. There are no ancient trees and only one veteran tree (considered as 'irreplaceable habitat' under NPPF). This is T6 on the south edge of field F4. This tree and a 15m buffer zone is retained in the proposals, as shown on the Landscape Parameter Plan submitted for approval.
- 1.31 Physical age of the hedgerows and their existence since the Enclosures Act is acknowledged by the submitted Heritage Assessment (see Section 3 of this note).
- 1.32 While it is acknowledged that the field boundaries are well-established (the landscape and heritage value being a matter for the Heritage Assessment), the vegetative communities comprising the boundaries are at odds with generally accepted conditions by which a habitat would be considered 'ancient' and thus 'irreplaceable habitat'. The EcIA fully 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 for habitat replacements, risks and complexities.

2.0 Arboriculture

- 2.1 TPO 1404 – Land at Broomhill Road was confirmed on 6th January 2022. Tree Preservation Orders do not require the retention of any tree they include within development.
- 2.2 The Council's arboriculture comments note that that relatively few trees would be removed to facilitate the full application for site access, but that further trees would unavoidably be lost as a consequence of establishing the principle of development and onward access. This is correct. The latter has not yet been fully designed or tested so at present the loss of trees proposed has been based on the illustrative masterplan only. Grant of outline permission would embed the principle of further tree removal into the scheme. This is most evident in Group G37 and woodland W2.

¹ [Notable invertebrates associated with ancient and species-rich hedgerows \(buglife.org.uk\)](https://buglife.org.uk) Accessed 5th October 2022

- 2.3 The Defra guidance note ‘Habitat Action Plans - Ancient & Species Rich Hedgerows’² defines ‘Ancient hedgerow’ as those *that were in existence before the Enclosures Acts (mainly passed between 1720 and 1840)*.
- 2.4 This is a different definition from Ancient Woodland which is continuously wooded since 1600AD. Identification of ancient hedges by reference to Enclosure Act maps is discussed at Section 3 (Heritage).
- 2.5 Ancient Woodland and “Ancient or Veteran Trees” have a specific status in NPPF as irreplaceable habitats. Ancient hedges are not mentioned by NPPF and do not have equivalent status. There is no known precedent for them to be regarded in the same light. The Defra note is management advice, rather than policy or policy guidance.
- 2.6 Ancient woodland, ancient trees and veteran trees also have their own standing advice³ which planning authorities should apply when making planning decisions. There is nothing in standing advice which uses the term ancient hedges.
- 2.7 There is no Arboricultural evidence that the hedgerows are “ancient”. Species diversity is low. There is only one veteran tree in the southern boundary hedge but there is no strong evidence from field survey that it might be >240 years old, (pre-dating the time of the Brislington enclosure).
- 2.8 Veteran trees need not be ancient; veteran is a description of condition. This condition class is typically associated with maturity and all ancient trees are veterans. However, not all veteran trees are ancient, and this is true in the case of T6 (an oak). As a long-lived species, oak trees may persist in maturity for many decades or centuries before they can properly be regarded as ancient. When applied to trees, ancient is a relative term, describing the age of a tree relative to the expectation for its species. An ancient tree need not be a particular age, but it must be unusually old for its species. This is quite different to way ‘ancient hedgerow’ is defined within the Defra guidance note.
- 2.9 The individual tree specimens that make up the hedges are not ancient trees. It would be extraordinary if they were, because that would require a very large number of trees to be exceptional. This is, by definition, unlikely. Detailed tree surveys have been undertaken and most trees are middle aged and generally in poor physical shape with numerous failed stems and decline throughout. There is a small number of older hawthorn trees present but these are not considered to be unusual or exceptional.
- 2.10 There is no ecological or Arboricultural evidence that the hedgerows contain ancient trees or ancient woodland, which would trigger NPPF paragraph 180 (c). Whether there has been a hedgerow at this alignment for a relatively long time, which therefore has heritage interest and/or associated habitat quality is a separate and different point. The objection rather lumps them all together. It seems reasonable to say that an old hedge has greater value than a more recent one, irrespective of its condition as a habitat, and that this value (heritage value) is material. We accept that the Council has been consistent in its use of the term “ancient hedgerow” in its pre-

² [\[ARCHIVED CONTENT\] Action plan for Ancient and/or species-rich hedgerows \(nationalarchives.gov.uk\)](#) accessed 5th October 2022

³ [Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK \(www.gov.uk\)](#) accessed 5th October 2022

application advice, but this is not the same as saying that such a hedge is ancient in terms of the intentions of NPPF.

- 2.11 In respect of the concerns raised the about proximity of trees to excavations, it is noted that the proposed cut and full details are indicative only at this outline stage. This would be a matter to be resolved at detailed design stage.
- 2.12 The Council's Tree Officer raises points of objection that all originate from the lack of detailed information arising from the outline nature of the application. These include difficulty in determining the specifics of tree removal and retention, and a lack of justification for tree removal in terms of replacement planting strategy. These points are not principally arboricultural, because they stem from planning process and strategy albeit the scope of the outline application was discussed and agreed with officers during the pre-application process. The submitted Tree Conflicts Plan (AIA Drawing 3) shows trees that would be likely to be removed if the final layout is as per an illustrative testing layout. It is reasonable to expect that this schedule of tree removal could be improved upon through the design process.
- 2.13 We differ slightly from the Tree Officer's assessment of which groups might be affected and advise that tree groups G1, G22 and G40 do not require removal, whereas we note that G20 would be removed, but was not noted on the Officer's assessment.
- 2.14 In relation to replacement of trees to comply with the Bristol Tree Replacement Standard, TEP has now carried out a measured survey and advises that an estimated 254 trees would be required, based on the Illustrative Layout. This is as set out in the table below:

Feature Ref	Trees Removed	Bristol Tree Replacement Standard
T9	1	5
T18	1	5
T28	1	8
G4	3	8
G7	1	1
G8	5	5
G9	0	0
G18	3	3
G20	11	31
G21	3	5
G24	7	11
G26	44	68
G27	0	0
G30	11	12
G31	4	4
G32	0	0
G33	10	18
G34	5	5
G35	2	2

Feature Ref	Trees Removed	Bristol Tree Replacement Standard
G37	0	0
G42	19	31
W2	20	32
Total	151	254

- 2.15 TEP will seek to agree this figure with the Tree Officer. The majority, if not all, the replacement trees required could be provided on site, but the applicant is committed to work with the Council at reserved matters stages to agree the optimum mix of on and off-site provision, bearing in mind the Council's aspirations for tree cover in the wider area.

3.0 Heritage

- 3.1 This section responds only to the "ancient hedgerow" points raised by the Nature Conservation and Arboriculture Officers. It does not deal with any other heritage issues, as we have not received a formal consultation response from the Council's Heritage team.
- 3.2 The submitted Heritage Desk-Based Assessment notes that it is probable that the field boundaries within the development site were created as part of, or contemporary with, the 18th century enclosures. Brislington Common was enclosed in 1778 by Act of Parliament; The boundary between the Commons and area to the south comprised an irregular boundary or hedgerow to the immediate north of the Brislington Meadows site, a small length of which survives at the north-west of the development site and separates the site from residential dwellings adjacent to Saint Peter's Methodist Church.
- 3.3 The Defra guidance note 'Habitat Action Plans - Ancient & Species Rich Hedgerows' defines 'Ancient hedgerow' as those *that were in existence before the Enclosures Acts (mainly passed between 1720 and 1840)*.
- 3.4 The Tithe map of c1840 shows that the hedgerows were in place at that time. This map does not date the enclosure so is not evidence that the hedgerows pre-date enclosure acts.
- 3.5 Brislington Common and the area around Brislington were enclosed by Acts of Parliament during the 1780s and we consider it probable that the hedgerows at Brislington Meadows were created during this period of enclosures. This assessment is consistent with the recorded species that make up the hedges which are typical enclosure hedgerow species. The hedgerows demonstrate typical characteristics of post-enclosure layout, being straight and forming regular rectangular parcels.
- 3.6 Whilst archive documentation exists for the hedgerows post-dating the enclosure period, research undertaken to date has not revealed evidence to demonstrate their existence prior to this period. Based on available documentary and map evidence it cannot be concluded that the hedgerows were an integral part of a field system prior to the Enclosure Acts.

- 3.7 Possible ridge and furrow remains identified during an initial walkover and desk-top study were subsequently attributed to modern activity including allotment activity. Linear striations visible on LiDAR coverage of the site have not been interpreted as evidence of ridge and furrow cultivation. Archaeological evaluation including geophysical survey and trial trench evaluation did not identify ridge and furrow remains and did not provide any evidence for medieval agricultural activity on the site or that the hedgerows can be attributed to a medieval or earlier field system.
- 3.8 Trial trench evaluation targeting anomalies identified in the geophysical survey identified an area of enclosures dating from the 2nd to 4th Centuries AD, forming a coherent system of ditches. No finds post-dating the Roman period were recovered. No evidence of continuity between the period of the archaeological remains and the hedgerows as seen on the 1840 tithe map was present.
- 3.9 The Council appears to take a position that because the hedges were in place by the end of the Enclosure period (i.e. 1840s), that they meet the definition of ancient hedgerow set out in the Defra Habitat Action Plan. However, we take the view that the Defra Habitat Action Plan only uses the term for hedges that pre-date Enclosure. As Enclosures in England took place over a long period, and occurred at different times, the term can only be applied to hedges that evidently pre-dated the relevant Enclosure. In this case, we have seen no documentary evidence of this, nor do we observe any corroborating evidence from geophysical survey or archaeological trial trenches.
- 3.10 We currently do not accept the basis of the Tree and Nature Conservation Officers' objections concluding that the hedgerows pre-date the enclosure acts and are therefore "ancient" as defined by Defra's Habitat Action plan.