

BBC Caversham, Berkshire

## **Update Habitat Survey and Biodiversity Net Gain Assessment**

March 2023

| Quality Management     |                                                            |
|------------------------|------------------------------------------------------------|
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# 1 Introduction

## 1.1 Background and Proposals

- 1.1.1 Aspect Ecology is advising Beechcroft Developments Ltd in respect of ecological issues relating to land at BBC Caversham, Berkshire proposed for redevelopment of the site to provide a care home, assisted living units, retirement dwellings and further residential development.
- 1.1.2 To inform the planning application, Aspect Ecology has undertaken updated habitat survey work and a Biodiversity Net Gain (BNG) assessment to determine the level of biodiversity net gain that could be achieved under the scheme. This work is based on the Biodiversity Metric 3.1 tool developed by Natural England and informed by biodiversity net gain guidance developed by CIRIA, CIEEM and IEMA.

## 1.2 Biodiversity Net Gain

### Environment Act

- 1.2.1 The Environment Act establishes a comprehensive legal framework for environmental improvement within the UK, forming one of the key measures to deliver the vision set out under the 25 Year Environment Plan.
- 1.2.2 The Environment Act is intended to establish the structure for long-term environmental governance and accountability and includes key measures to drive improvements for nature. In particular, it lays the foundation for a Nature Recovery Network, and introduces a mandatory requirement for biodiversity net gain in the planning system, to ensure that new developments enhance biodiversity and create new green spaces for local communities to enjoy. This will require developments to deliver a 10% improvement in biodiversity value, albeit this will not be a legal requirement until the legislation is finalised, currently anticipated to be autumn 2023.

### Good Practice Principles for Development

- 1.2.3 CIRIA, CIEEM and IEMA have developed a set of principles on good practice to achieve Biodiversity Net Gain<sup>1</sup>, accompanied by a practical guide<sup>2</sup>. These principles provide a framework that helps improve the UK's biodiversity by contributing towards strategic priorities to conserve and enhance nature while progressing with sustainable development. They also provide a way for industry to show that projects follow good practice. Ten key principles are identified:
  - 1) **Apply the Mitigation Hierarchy.** Do everything possible to first avoid and then minimise impacts on biodiversity. Only as a last resort, and in agreement with external decision-makers where possible, compensate for losses that cannot be avoided. If compensating for losses within the development footprint is not possible or does not generate the most benefits for nature conservation, then offset biodiversity losses by gains elsewhere.

<sup>1</sup> CIEEM, CIRIA, IEMA (2016) *Biodiversity Net Gain: Good practice principles for development*.

<sup>2</sup> CIEEM, CIRIA, IEMA (2019) *Biodiversity Net Gain: Good practice principles for development. A practical guide*.

- 2) **Avoid losing biodiversity that cannot be offset by gains elsewhere.** Avoid impacts on irreplaceable biodiversity - these impacts cannot be offset to achieve No Net Loss or Net Gain.
- 3) **Be inclusive and equitable.** Engage stakeholders early, and involve them in designing, implementing, monitoring and evaluating the approach to Net Gain. Achieve Net Gain in partnership with stakeholders where possible, and share the benefits fairly among stakeholders.
- 4) **Address risks.** Mitigate difficulty, uncertainty and other risks to achieving Net Gain. Apply well-accepted ways to add contingency when calculating biodiversity losses and gains in order to account for any remaining risks, as well as to compensate for the time between the losses occurring and the gains being fully realised.
- 5) **Make a measurable Net Gain contribution.** Achieve a measurable, overall gain for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.
- 6) **Achieve the best outcomes for biodiversity.** Achieve the best outcomes for biodiversity by using robust, credible evidence and local knowledge to make clearly-justified choices when:
  - Delivering compensation that is ecologically equivalent in type, amount and condition, and that accounts for the location and timing of biodiversity losses
  - Compensating for losses of one type of biodiversity by providing a different type that delivers greater benefits for nature conservation
  - Achieving Net Gain locally to the development while also contributing towards nature conservation priorities at local, regional and national levels
  - Enhancing existing or creating new habitat
  - Enhancing ecological connectivity by creating more, bigger, better and joined areas for biodiversity
- 7) **Be additional.** Achieve nature conservation outcomes that demonstrably exceed existing obligations (i.e. do not deliver something that would occur anyway).
- 8) **Create a Net Gain legacy.** Ensure Net Gain generates long-term benefits by:
  - Engaging stakeholders and jointly agreeing practical solutions that secure Net Gain in perpetuity
  - Planning for adaptive management and securing dedicated funding for long-term management
  - Designing Net Gain for biodiversity to be resilient to external factors, especially climate change
  - Mitigating risks from other land uses
  - Avoiding displacing harmful activities from one location to another
  - Supporting local-level management of Net Gain activities
- 9) **Optimise sustainability.** Prioritise Biodiversity Net Gain and, where possible, optimise the wider environmental benefits for a sustainable society and economy.
- 10) **Be transparent.** Communicate all Net Gain activities in a transparent and timely manner, sharing the learning with all stakeholders.

## 2 Methodology

### 2.1 Habitat Survey

- 2.1.1 The site was surveyed in June and August 2018, with an update survey undertaken in November 2021 in order to ascertain the general ecological value of the land contained within the boundaries of the site and to identify the main habitats and ecological features present.
- 2.1.2 The site was surveyed based on standard Phase 1 Habitat Survey methodology<sup>3</sup>, whereby the habitat types present are identified and mapped, together with an assessment of the species composition of each habitat. The site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified. The nomenclature used for plant species is based on the Botanical Society for the British Isles (BSBI) Checklist.
- 2.1.3 The site was further subject to a habitat condition assessment survey in December 2022, where the condition of each habitat type was assessed in accordance with the Metric 3.1 guidance (as detailed below). Although this condition assessment fell outside of the optimal window, given the nature of the habitats present within the site and the previous visits within the optimal window (providing a good knowledge of the site) it is considered that a full assessment was unconstrained.

### 2.2 Survey Constraints and Limitations

- 2.2.1 All of the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during different seasons. A number of Phase 1 habitat surveys were undertaken within the optimal season (especially for grassland surveys) and subsequent follow up surveys confirmed that no changes had occurred at the site and, therefore a robust assessment of the habitats and botanical interest across the site could be made.

### 2.3 Biodiversity Net Gain Assessment

- 2.3.1 To quantify the level of biodiversity net gain that can be delivered under the proposed development, the change in biodiversity value resulting from the scheme has been calculated using the Metric 3.1 calculation tool and associated user guide<sup>4</sup>. This takes account of the size, distinctiveness and ecological condition of existing and proposed habitat areas to provide a proxy measure of the present and forecast biodiversity value of a site, and therefore determine the overall change in biodiversity value. These calculations are provided at Appendix 5022/1.
- 2.3.2 To establish the habitat baseline, broad habitat areas have been identified based on the survey work undertaken at the site, with habitat condition assigned based on the guidance set out in the Technical Supplement<sup>5</sup> and professional judgement. Multiple quadrats were sampled within the grassland areas, in order to assess the number of species present.

<sup>3</sup> Joint Nature Conservation Committee (2010, as amended) *'Handbook for Phase 1 habitat survey: A technique for environmental audit.'*

<sup>4</sup> Natural England (May 2022) *Natural England Joint Publication JP039. Biodiversity Metric 3.1: auditing and accounting for biodiversity – User Guide.*

<sup>5</sup> Natural England (May 2022) *Natural England Joint Publication JP039. The Biodiversity Metric 3.1: auditing and accounting for biodiversity – Technical Supplement.*

- 2.3.3 The post-development habitat creation and enhancement is based on the drawing 'Illustrative Landscape Strategy – Northern Area and Southern Area' (3<sup>rd</sup> January 2023). A number of assumptions have been made in terms of the detailed landscaping and management proposals, based on comparative developments and what is realistic and feasible under the proposed land uses and landscape space types. Further details of assumptions made in populating the metric are provided in Chapter 4 below.

## 3 Habitats and Ecological Features

### 3.1 Overview

3.1.1 The site comprises a number of buildings converted for office use, surrounded by areas of hardstanding and landscaping, including large areas of grassland interspersed with tree and shrub planting. Three areas of woodland are also present within the site, in addition to three ponds, an orchard, hedgerows / treelines and a number of veteran trees.

3.1.2 The following habitats / ecological features were identified within / adjacent to the site:

- Buildings and Hardstanding
- Amenity Planting;
- Dense Scrub;
- Grassland;
- Woodland;
- Ponds;
- Tall Ruderal Vegetation;
- Orchard;
- Trees;
- Tree Lines;
- Hedgerows;

3.1.3 The locations of these habitat types and features are illustrated on Plan 5022/BNG1 and described in detail below.

### 3.2 Buildings and Hardstanding

3.2.1 A number of buildings and other structures are also present within the site, along with associated areas of hardstanding in the form of existing access roads and areas of car parking. These habitats are all limited in extent and are of intrinsically negligible ecological value.

3.2.2 The buildings and hardstanding have been classified as 'Developed land; sealed surface' for the purpose of the Biodiversity Net Gain Assessment. A condition assessment is not required for this habitat type, and it is automatically allocated a multiplier score of 1.

### 3.3 Amenity Planting

3.3.1 Areas of amenity planting are present within the site, located in close association with the on-site buildings. These areas were noted to be largely ornamental in nature and well managed, with little evidence of colonisation by native weeds. Invasive *Cotoneaster* *Cotoneaster* sp. were recorded within the onsite amenity planting. A number of amenity Cherry Laurel *Prunus laurocerasus* hedges were also recorded within the site, which

appeared to be subject to regular management to a box and formed dense and continuous features.

- 3.3.2 The amenity planting has been classified as 'Introduced shrub' for the purpose of the BNG assessment. Due to the species planted comprising non-native specimens this habitat provides no benefit to biodiversity and the condition is automatically assessed as N/A.

### 3.4 Dense Scrub

- 3.4.1 Areas of dense scrub are present throughout the site in the form of patches of Bramble *Rubus fruticosus agg.*, as well as areas of mature native shrubs including Dogwood *Cornus sanguinea*, Silver Birch *Betula pendula*, Dog-rose *Rosa canina*, Holly *Ilex aquifolium* and Pedunculate Oak *Quercus robur*.
- 3.4.2 The dense scrub has been classified as mixed scrub for the purpose of the biodiversity net gain assessment and has been assessed to be in moderate condition where a small patch of entirely native scrub is located (labelled DS1 on Plan 5022/BNG1) and in poor condition for other areas.

### 3.5 Grassland

- 3.5.1 A number of grassland fields are present within the site (labelled F1 – F7 on Plan 5022/BNG1).
- 3.5.2 Grassland fields F1 – F5 are short sward, recently mown areas, with F5 comprising a particularly short sward. The grassland areas in these locations are interspersed with a number of young to mature trees and were recorded to be species-poor with species including Yorkshire-fog *Holcus lanatus*, Cock's-foot *Dactylis glomerata*, Meadow-grass *Poa sp.*, Sweet Vernal-grass *Anthoxanthum odoratum*, False Oat-grass *Arrhenatherum elatius*, Creeping Cinquefoil *Potentilla reptans*, Creeping Buttercup *Ranunculus repens*, Yarrow *Achillea millefolium*, Ribwort Plantain *Plantago lanceolata* and Bird's-foot-trefoil *Lotus sp.*
- 3.5.3 Grassland field F6, located centrally towards the eastern boundary of the site, comprises a longer sward and was recorded to be more species-rich than other grassland areas. Species present within this sward include Cock's-foot, Yorkshire-fog, Crane's-bill *Geranium sp.*, Ribwort Plantain, Cat's-ear *Hypochaeris sp.*, Greater Plantain *Plantago major*, White Clover *Trifolium repens* and Creeping Buttercup.
- 3.5.4 To the south of the site a large, unmanaged grassland field with patches of scrub is present (labelled F7 on Plan 5022/BNG1). This grassland is dominated by coarse grasses, with Cock's-foot particularly prominent, whilst other species present include Yorkshire-fog, Perennial Rye-grass *Lolium perenne*, Meadow-grass, Ribwort Plantain, Creeping Buttercup and White Clover.
- 3.5.5 The grassland has been classified as modified grassland within the DEFRA Biodiversity Metric v3.1, due to comprising a generally species-poor sward with a high coverage of Rye-grasses and White Clover. Grassland fields F1 – F5 and F7 are assessed to be in poor condition, having failed essential criterion one and one to two other criteria within the condition assessment sheet that accompanies the DEFRA Biodiversity Metric 3.1 Calculation

Tool. Grassland F6 has been assessed to be in good condition due to failing only one criterion and passing essential criterion one within the condition assessment sheet.

### 3.6 Woodland

3.6.1 Three woodlands are present centrally within the site (labelled W1 – W3 on Plan 5022/BNG1), with W1 located towards the eastern boundary and W2 and W3 towards the western boundary. The woodlands are described below.

3.6.2 **Woodland W1:** Woodland W1, located within the east of the site, was recorded to be a well-structured mixed woodland, supporting a largely closed canopy. At the southern and central extent of the woodland the canopy was noted to be dominated by semi-mature and mature trees, including Yew *Taxus baccata*, Beech *Fagus sylvatica* and Oak *Quercus robur*, along with more occasional coniferous species (particularly within the western portion of woodland W1). In addition, woodland W1 also contains two notable trees, these being a Yew and Horse Chestnut *Aesculus hippocastanum*, along with a single veteran Cedar of Lebanon *Cedrus libani*. Woodland W1 was noted to also include a well-defined understorey comprising both scattered and dense concentrations of young trees and scrub, including saplings of the species recorded within the canopy in addition to frequent Holly, Silver Birch *Betula pendula*, Sycamore *Acer pseudoplatanus*, Lime *Tilia platyphyllos* x *cordata* = *T. x europaea*, Hornbeam *Carpinus betulus* and Elm *Ulmus* sp.. In addition, a significant coverage of non-native Cherry Laurel has also been recorded within woodland W1, which has appeared to encroach from nearby areas of amenity planting. Scattered Rhododendron *Rhododendron ponticum* was recorded within this area of woodland. Whilst areas of bare ground and piles of deadwood are present within woodland W1, a notable ground flora is also present within this area, including species such as Foxglove *Digitalis purpurea*, Common Ragwort *Senecio jacobaea*, Pendulous Sedge *Carex pendula*, Common Sorrel *Rumex acetosa* subsp. *acetosa*, Common Nettle *Urtica dioica* and Yorkshire-fog, along with a number of short mown grassland areas located under the semi-mature and mature trees present at the north western edge of W1. A number of log piles are present throughout woodland W1.

3.6.3 **Woodland W2:** Woodland W2, located towards the western boundary and surrounding pond 'P2' (described below), was also recorded to be a well-structured mixed woodland and supported a closed canopy in the majority, albeit with a number of canopy openings present which have enabled Common Nettle and Bramble to colonise. In comparison to W1, W2 was noted to contain a higher proportion of young and semi-mature trees, although mature trees were also recorded throughout the woodland.

3.6.4 The canopy of woodland W2 was recorded to be dominated by mature Oak, Yew, and Hornbeam, along with more occasional young to mature Horse Chestnut, Sycamore, Cherry, Lime, Cypress *Cupressus* sp., Ash *Fraxinus excelsior* and Field Maple *Acer campestre*. In addition, woodland W2 also contains a number of notable trees, comprising Yew, Turkey Oak *Quercus cerris*, and Giant Sequoia *Sequoiadendron giganteum*, along with two veteran Lime and Oriental Plane *Platanus orientalis*. A number of these trees have been subject to some form of management, with evidence that attempts have been made to remove the dense Ivy *Hedera helix* covering from a number of the more mature trees recorded at the time of survey. Woodland W2 was noted to also support a well-defined understorey comprising Hawthorn *Crataegus monogyna*, Holly, Hornbeam, Willow *Salix* sp., Elder *Sambucus nigra* and occasional to frequent Cherry Laurel (particularly within the west of woodland W2). Woodland W2 also supported a notable ground flora community, including a number of herbaceous species such as Ivy, Common Nettle, Common Ragwort, Ground-Ivy *Glechoma hederacea*, Hedge Mustard *Sisymbrium officinale*, Greater Plantain *Plantago*

*major*, Daisy *Bellis perennis*, Broad-leaved Dock *Rumex obtusifolius*, in addition to frequent sedges and *grasses*, particularly Yorkshire-fog. As was recorded within woodland W1, a number of piles of deadwood were recorded within woodland W2.

- 3.6.5 **Woodland W3:** Woodland W3, located adjacent to the western site boundary, is the smallest area of woodland within the survey area and was noted to be structurally and compositionally distinct from woodlands W1 and W2. Indeed, woodland W3 was recorded to comprise only a small number of early mature trees, with the canopy being dominated by semi-mature Oak, Beech, Yew, Lime, Hornbeam, Sycamore and occasional young Hawthorn and Elm. In stark contrast to the woodland habitat present elsewhere within the site, woodland W3 did not support an understory and only limited ground flora, with the woodland recorded to support a significant coverage of bare ground.
- 3.6.6 The three areas of woodland are classified as 'Other Woodland; Mixed'. Woodland W1 is considered to be in 'Good' condition due to scoring 33 out of 39 on the woodland condition assessment sheet that accompanies the DEFRA Biodiversity Metric 3.1 Calculation Tool.
- 3.6.7 Woodland W2 and W3 are considered to be in 'Moderate' condition due to scoring 27 and 28 out of 39 respectively on the woodland condition assessment sheet.

### 3.7 Ponds

- 3.7.1 Three ponds are present towards the centre of the site (labelled P1 – P3 on Plan 5022/BNG1), of which P1 is surrounded by woodland (as described above) and P2 – P3 are of a more ornamental nature.
- 3.7.2 Pond P1 is located towards the west of the site, within woodland 'W2'. The pond is a large linear feature, which appeared to be lined (although the water was very turbid at the time of survey) and stocked with a large number of fish. Approximately three metres of short grassland immediately surrounds the pond, whilst branches overhang parts of the ponds surface.
- 3.7.3 Ponds P2 and P3 are located towards the centre of the site and adjacent woodland W1 and a small patch of amenity planting. The pond habitats support a low diversity of aquatic vegetation, whilst the Schedule 9 invasive species New Zealand Pigmyweed *Crassula helmsii* was recorded within the ponds.
- 3.7.4 The ponds within the site have been classified as non-priority habitat ponds, ponds P1 and P3 are assessed to be in poor condition having failed three criteria for woodland ponds and five criteria for non-woodland ponds within the condition assessment sheet that accompanies the DEFRA Biodiversity Metric 3.1 Calculation Tool. Pond P2 has been assessed to be in moderate condition having passed six of the criteria within the condition assessment sheets.

### 3.8 Tall Ruderal Vegetation

- 3.8.1 A single patch of tall ruderal/ephemeral vegetation is present at the site within field F6 (labelled R1 on Plan 5022/BNG1). The vegetation primarily comprises colonising vegetation associated with what appears to be a previous allotment area. Common Nettle is dominant within this habitat, whilst bare ground is also relatively prominent.
- 3.8.2 The ruderal/ephemeral vegetation has been assessed to be in poor condition due to failing all of the criteria within the condition assessment sheet that accompanies the DEFRA Biodiversity Metric 3.1 Calculation Tool.

### 3.9 Orchard

- 3.9.1 An area located towards the west of the site within grassland field F2 comprises an orchard (labelled O1 on Plan 5022/BNG1). The orchard habitat was recorded to comprise at least 30 fruit trees dominated by Apple *Malus* sp., with the age of trees recorded to vary from semi-mature to mature, along with a small number of young self-seeded saplings. In addition, the orchard habitat supports two veteran Orchard Apple trees *Malus pumila*. The fruit trees were recorded to have been predominantly planted at intervals of approximately 6-10m, with further species present including Cherry *Prunus avium* and Pear *Pyrus* sp. Overall, the trees within the orchard habitat appear to be in a healthy condition (albeit some older individuals support large rot holes).
- 3.9.2 For the purpose of the biodiversity metric, this habitat has been classified as traditional orchard and is assessed to be in moderate condition having passed five of the eight assessment criteria on the traditional orchard condition assessment sheet that accompanies the DEFRA Biodiversity Metric 3.1 Calculation Tool.

### 3.10 Trees

- 3.10.1 A significant number of young to mature trees are located throughout the site, the majority of which are located within the northern half of the site. Trees within the site largely comprise native species such as Oak *Quercus* sp., Lime *Tilia* sp., Poplar *Populus* sp., Yew *Taxus baccata*, Hornbeam *Carpinus betulus*, Cherry, Silver Birch *Betula pendula*, Elm *Ulmus* sp., Sycamore *Acer pseudoplatanus*, Field Maple *Acer campestre*, Horse-chestnut *Aesculus hippocastanum*, Beech *Fagus sylvatica*, Ash *Fraxinus excelsior*, Holly, Willow, Hybrid Cockspur Thorn *Crataegus x lavalleei*, Hybrid Black Poplar *Populus x canadensis*, Blackthorn *Prunus spinosa* and Rowan *Sorbus aucuparia*, along with a number of additional coniferous trees.
- 3.10.2 The trees within the site have been classified as urban trees for the purpose of the biodiversity metric and have been assessed as moderate condition due to passing a minimum of three and maximum of four assessment criteria on the urban tree condition assessment sheet that accompanies the DEFRA Biodiversity Metric 3.1 Calculation Tool.

### 3.11 Tree Lines

- 3.11.1 Five tree lines are present within the site (labelled TL1 – TL5 on Plan 5022/BNG1). All of the tree lines within the site are of a mature nature and comprise entirely native species, with TL2 and TL4 also being associated with dry ditches.
- 3.11.2 Tree line **TL1**, located adjacent a car park and areas of amenity grassland is set atop an embankment with a closely associated wall. This line of trees was recorded to form a dense and continuous feature that has not been recently managed. TL1 was recorded to chiefly comprise young to semi-mature Hazel *Corylus avellana* (which displayed evidence of previous coppicing), Yew, Elm, Ash, Sycamore, Cherry, Oak, Field Maple, Hawthorn and Elder. The ground flora was noted to be relatively sparse at the time of survey (likely due to the overshadowing from the tree line itself) and comprised of Bramble, Ivy, Willowherb *Epilobium* sp., Wood Avens *Geum urbanum*, Cherry Laurel and Cotoneaster.
- 3.11.3 Tree line **TL2**, located at the eastern site boundary, was recorded to be somewhat gappy in nature. A number of mature Oak trees dominated the tree line whilst additional species include young to semi-mature Ash and Sycamore. The understory of TL2 was recorded to

be dominated by Cherry Laurel, whilst the ground flora comprised Broad-leaved Dock, Common Nettle, Common Ragwort, Ivy, Common Hogweed, Dandelion and False Oat-grass.

- 3.11.4 Tree line **TL3**, present along the eastern site boundary, was recorded to be a wide, double staggered feature. The tree line was recorded to comprise a number of semi-mature trees, including Cherry, Beech, Lime, Field Maple, Sycamore, Horse-chestnut, Norway Maple *Acer platanoides*, Silver Maple *Acer saccharinum* and Cherry Plum *Prunus cerasifera*. The understory vegetation comprises Hawthorn scrub and a small number of self-seeded Field Maple saplings, planted Lime and Dogwood saplings. The ground flora beneath contained of a number of herbaceous species, including Herb Robert, Creeping Buttercup, Garlic Mustard *Alliaria petiolata* and Common Field-Speedwell *Veronica persicaria*.
- 3.11.5 Tree lines **TL4** and **TL5** are located at the centre of the site between woodlands W1 and W2 and within the southern field respectively. TL4 was recorded to be associated with a shallow, dry ditch. The tree lines are of a similar nature, have not been subject to recent management and were recorded to be dominated by Hawthorn.
- 3.11.6 Lines of trees **TL1** and **TL3 – TL5** were assessed to be in moderate condition due to failing between one and two criteria within the condition assessment sheet that accompanies the DEFRA Biodiversity Metric 3.1 Calculation Tool. Tree line **TL2** has been assessed to be in good condition having passed all of the condition assessment criteria.

### 3.12 Hedgerows

- 3.12.1 Four hedgerows are present within the site, located at site boundaries and within the site itself (labelled H1 – H4 on Plan 5022/BNG1). These hedgerows are described below.
- 3.12.2 Hedgerow **H1** comprises a dense and continuous hedgerow within the northern half of the site, which is dominated by Hawthorn and Oak, with Elm, Dog-rose and Holly also present. The ground flora is sparse, and includes species such as Cleavers, Ivy, Bramble and *Umbellifer* sp.
- 3.12.3 Hedgerows **H2** and **H3** are located along the northern and western boundaries of the site and are also dominated by Hawthorn. Other species present include Oak, Hazel, Yew, Elm and Holly, whilst Cherry Laurel was also recorded within hedgerow H2.
- 3.12.4 Hedgerow **H4** is a short stretch of hedgerow located within the existing built development, adjacent an area of amenity grassland. Evidence of recent management to the hedgerow was recorded during the survey work, whilst species present include Oak, Ash, Holly, Privet *Ligustrum vulgare* and Wild Cherry.
- 3.12.5 Hedgerows **H1 – H4** fail a maximum of one of the four condition parameters within the condition assessment sheet that accompanies the DEFRA Biodiversity Metric 3.1 Calculation Tool and therefore are assessed to be in good condition.

### 3.13 Ditches

- 3.13.1 A single ditch, approximately 0.98km in length, is located within the site (as detailed within Plan 5022/BNG1). The ditch begins adjacent the northern boundary and travels along the boundary in a clockwise direction before moving towards the centre of the site at the eastern boundary. The ditch appears to be man-made at the northern sections, where an adjacent bund is present, presumed to comprise spoil from the ditch. The ditch ranges in dimensions, although is generally 1-2m in width and depth. The majority of the ditch was

recorded to be dry at the time of survey and held species present that were comparable with adjacent habitats as well as a large amount of leaf litter.

- 3.13.2 The ditch has been assessed to be in poor condition due to failing five of the eight criteria within the condition assessment sheet that accompanies the DEFRA Biodiversity Metric 3.1 Calculation Tool.

## 4 Post-development Habitats

### 4.1 Assumptions

4.1.1 When inputting the post-development habitat areas and condition to the Metric 3.1, the following assumptions have been made:

- Newly created habitat under the proposals will be managed appropriately to reach the assigned target condition (anticipated to be defined by a future management plan).
- A flowering lawn mix can be used within the areas of amenity (modified) grassland to maximise biodiversity benefits whilst providing an amenity habitat.
- Where new grassland creation overlaps with existing grassland in locations that would not likely be affected by works (such as those located within areas of F1, F2, F3, F5 and F7), these areas are assumed to be retained and enhanced (as indicated on Plan 5022/BNG1).
- Future management prescriptions at the site within areas of 'other neutral' grassland will be subject to a traditional meadow management regime, in order to maintain the presence of a minimum 9 species necessary to qualify as this habitat type.
- New tree planting has been provided as indicated by the proposals, with additional trees added where considered appropriate.
- It is anticipated that hedgerows H1 – H3 can be fully retained under the proposals. Areas of new hedgerow planting have been indicated in order to show the extent required to achieve a net gain, though the final detailed design may require some changes to their location.

### 4.2 Good Practice Principles for Development

4.2.1 Provided below is a summary of how biodiversity net gain good practice principles have been applied at the site:

- 1) **Apply the Mitigation Hierarchy.** The mitigation hierarchy has been followed with the retention of medium distinctiveness woodland and scrub within the site. Areas that are unavoidably lost to the development footprint, are compensated for by new planting at the site. The majority of the habitat loss arises from low distinctiveness grassland.
- 2) **Avoid losing biodiversity that cannot be offset by gains elsewhere.** No irreplaceable habitats are lost. Where medium distinctiveness habitat is lost this is offset by new areas of medium distinctiveness habitat creation.
- 3) **Be inclusive and equitable.** Further discussions will be held as required, in order to maximise the ecological benefit under the detailed landscape design.
- 4) **Address risks.** The Metric 3.1 has an inbuilt difficulty multiplier which allows for the time between losses and the gains to be incorporated into the final score.
- 5) **Make a measurable Net Gain contribution.** A measurable significant net gain is demonstrated by the Metric. In addition, faunal specific benefits will be provided by the scheme, which are not included within the metric.

- 6) **Achieve the best outcomes for biodiversity.** As far as practicable, areas of medium distinctiveness within the site (mixed scrub, woodland and ponds) will be retained, whilst the site will benefit from the provision of generous new tree planting and the enhancement of large areas of modified grassland to other neutral grassland.
- 7) **Be additional.** The provision of new tree planting at the site will create an ecologically valuable habitat and improve connectivity for wildlife at the site, which would not otherwise occur without significant intervention.
- 8) **Create a Net Gain legacy.** The retained and enhanced grassland throughout the site, in combination with the new tree planting, will be managed for the benefit of nature conservation for the lifetime of the development (likely to be secured by a planning condition).
- 9) **Optimise sustainability.** Overall the new habitats will provide an enhanced biodiversity network compared to the existing situation.
- 10) **Be transparent.** This report ensures the proposals are well communicated to stakeholders.

### 4.3 Strategic Significance

- 4.3.1 Strategic significance in the metric is assigned to give extra value to habitats that are located in optimal locations, or are of a type that meet local objectives for biodiversity. Strategic significance has been applied to some of the habitats along the north eastern boundary pre and post-development, given this small section of the site falls within Network Enhancement Zone 2 of the National Habitat Network. Despite the site itself not comprising any components attributable to existing Priority Habitats, proposed habitats will provide green infrastructure and maximise opportunities to enhance the habitat network.

### 4.4 Habitat Type and Condition

- 4.4.1 A summary of post-development habitat creation is set out in Tables 4.1 – 4.3 below. Post-development habitats are shown at Plan 5022/BNG2.

**Table 4.1.** Post-development Habitat Enhancement

| Habitat Change                                                        | Condition Change | Condition Rationale                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Heathland and shrub – Mixed scrub - Heathland and shrub – Mixed scrub | Poor - Good      | The existing area of mixed scrub (labelled DS5 on Plan 5022/BNG1) will be retained and enhanced to a good condition. The area of scrub is of a reasonable size, as such, it is anticipated that clearings, glades or rides can be incorporated, whilst a good age range can be developed over time. The placement within the southern field (enhanced with wildflower grassland detailed below), will allow for a species-rich, well developed edge. |
| Grassland – Modified Grassland - Grassland – Other neutral grassland  | Poor - Good      | The existing modified grassland will be retained throughout the areas of public open and enhanced to other neutral grassland (especially the southern field). Through scarification, over-seeding with a suitable wildflower mix (including a high quantum of                                                                                                                                                                                        |

|                                                                             |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                             |                 | Yellow Rattle) and implementation of ecologically sensitive management, it is anticipated that this habitat will support a good species diversity and structure, with Bracken, scrub and physical damage to be kept to minimum, allowing this habitat to likely achieve a good condition.                                                                                                                                                                                                            |
| Lakes – Ponds (Non-Priority Habitat) - Lakes – Ponds (Non-Priority Habitat) | Poor - Moderate | Existing ponds P1 and P3 are to be retained and enhanced for the benefit of wildlife. The removal of invasive species, including fish from P1 and New Zealand Pigmyweed from P3, alongside improvement of the water quality will achieve a moderate condition. In reality, should it be possible to remove all invasive species as well as create good water quality, pond P1 could achieve good condition. However, moderate condition has been selected for a conservative approach at this stage. |

**Table 4.2.** Post-development Habitat Creation

| Habitat                                           | Target Condition | Condition Rationale                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Urban – Developed Land; Sealed Surface            | N/A              | This includes all roads, parking and buildings within the site. No assessment for the condition of this habitat is required.                                                                                                                                                                                                                                                                                      |
| Urban – Vegetated garden                          | N/A              | This includes the gardens of the proposed properties. No assessment for the condition of this habitat is required.                                                                                                                                                                                                                                                                                                |
| Urban – Introduced shrub                          | N/A              | This habitat includes areas of proposed ornamental planting. As the habitat provides no benefit to wildlife or biodiversity, no condition assessment is required.                                                                                                                                                                                                                                                 |
| Grassland – Modified Grassland                    | Moderate         | Areas of amenity grassland to be created near to the built development and within areas such as that surrounding the sports pitches and within public open space at the centre of the site. Through planting of an appropriate species-rich mix, management to prevent encroachment of scrub and bracken as well as an absence of non-native species this habitat is anticipated to achieve a moderate condition. |
| Heathland and shrub – Mixed scrub                 | Moderate         | Areas of native scrub planting, located adjacent existing scrub, will include a minimum of three woody species, no invasive or undesirable species and will develop a good age range over time, is anticipated achieve moderate condition.                                                                                                                                                                        |
| Woodland and forest – Other woodland; broadleaved | Moderate         | New woodland planting is proposed adjacent woodland W1, where existing introduced shrub in the form of Cherry Laurel is currently present. The woodland is expected to achieve moderate condition through planting of a minimum of five native species, where browsing will be kept to a minimum. Sensitive ecological management will ensure a healthy ground flora is present and an                            |

|                                     |          |                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     |          | absence of invasive species, whilst standing deadwood can be incorporated into the woodland.                                                                                                                                                                                                                                                                           |
| Grassland – Traditional orchards    | Moderate | New orchard habitat is to be created adjacent the existing orchard, enhancing habitat connectivity and benefitting wildlife within the site. Through sensitive ecological management, scrub will occupy less than 10% of ground cover, trees will be free of damage, and the grassland habitat will be of a medium distinctiveness and comprise a varied sward height. |
| Grassland – Other neutral grassland | Good     | Patches of wildflower grassland proposed within the site will benefit a range of wildlife. This habitat is expected to achieve good condition through planting of an appropriate wildflower mix and sensitive ecological management.                                                                                                                                   |
| Urban – Urban tree                  | Moderate | Native trees to be planted throughout the site within areas of open space, expected to achieve moderate condition within 30 years with suitable management.                                                                                                                                                                                                            |

**Table 4.3.** Post-development Linear Feature (Hedgerow) Creation

| Habitat                      | Target Condition | Condition Rationale                                                                                                                                                                                      |
|------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Native Species Rich Hedgerow | Good             | Two native hedgerows are proposed along the southern site boundary and will be planted with a mix of native species. Through suitable management this habitat would be expected to reach good condition. |

## 5 Biodiversity Net Gain Assessment Results

### 5.1 Metric calculation

- 5.1.1 The data from the baseline habitat survey work and the proposed habitat enhancement and creation works have been coded into the Metric.
- 5.1.2 In summary, the Metric indicates that the development will result in a 107.01 (37.57%) gain in habitat units for biodiversity and a 0.94 (16.95%) gain in hedgerow units. The results are broken down in Table 5.1 below:

**Table 5.1** Net gain results

|           | Change in Units | % Change |
|-----------|-----------------|----------|
| Habitats  | 107.01          | 37.57%   |
| Hedgerows | 0.94            | 16.95%   |

- 5.1.3 The trading summary also indicates that all trading rules are satisfied, having created a significant number of high distinctiveness habitat groups off-setting the loss of low distinctiveness habitats within the site.

### 5.2 Additional faunal benefits not captured by the Metric

- 5.2.1 Further biodiversity benefits will be provided by faunal enhancements, for example through the provision of new bat and bird boxes, hedgehog domes and bee bricks (which can be secured via suitably worded planning conditions). Such faunal enhancements are not quantified under the Metric as this deals with habitats alone and does not address faunal benefits. In addition, the value of a number of new vegetated gardens will likely be of higher value than the stipulated condition under the Metric.

### 5.3 Quantum of net gain

- 5.3.1 The NPPF currently requires a net gain to be delivered, but does not set a threshold. The Environment Bill received Royal Assent in November 2021, such that it is now an Act of Parliament. The Act sets out the need to achieve a minimum 10% gain, calculated using an approved metric (calculation tool), with habitat obligations secured for at least 30 years. However, secondary legislation is required to implement these commitments to Biodiversity Net Gain which is not expected to be passed until late 2023. The 10% biodiversity net gain requirement set out in the Act is therefore not yet law, such that it is not applicable to the proposals and the net gain sought under the NPPF can be fully satisfied without reference to this figure.
- 5.3.2 This is confirmed by recent appeal decisions e.g. Malmesbury Decision (January 2022)<sup>6</sup>. This states:

*“Full on-site mitigation is not achievable. Compensation for residual harm is therefore required. In this regard, although The Environment Act 2021 has now passed, secondary legislation is required for it to be implemented. Therefore, the 10% biodiversity net gain*

<sup>6</sup> Malmesbury Decision January 2022. Planning Inspectorate references APP/Y3940/W/21/3278256 and APP/Y3940/Q/21/3278923

*requirement set out in the Act is not yet law and is not applicable to these appeals. Policy CP50 of the CS, and Paragraph 174 of the Framework, both seek a net gain in biodiversity without identifying a specific percentage. A net gain of just 1% would be policy compliant in these circumstances. This could be secured by a planning obligation”.*

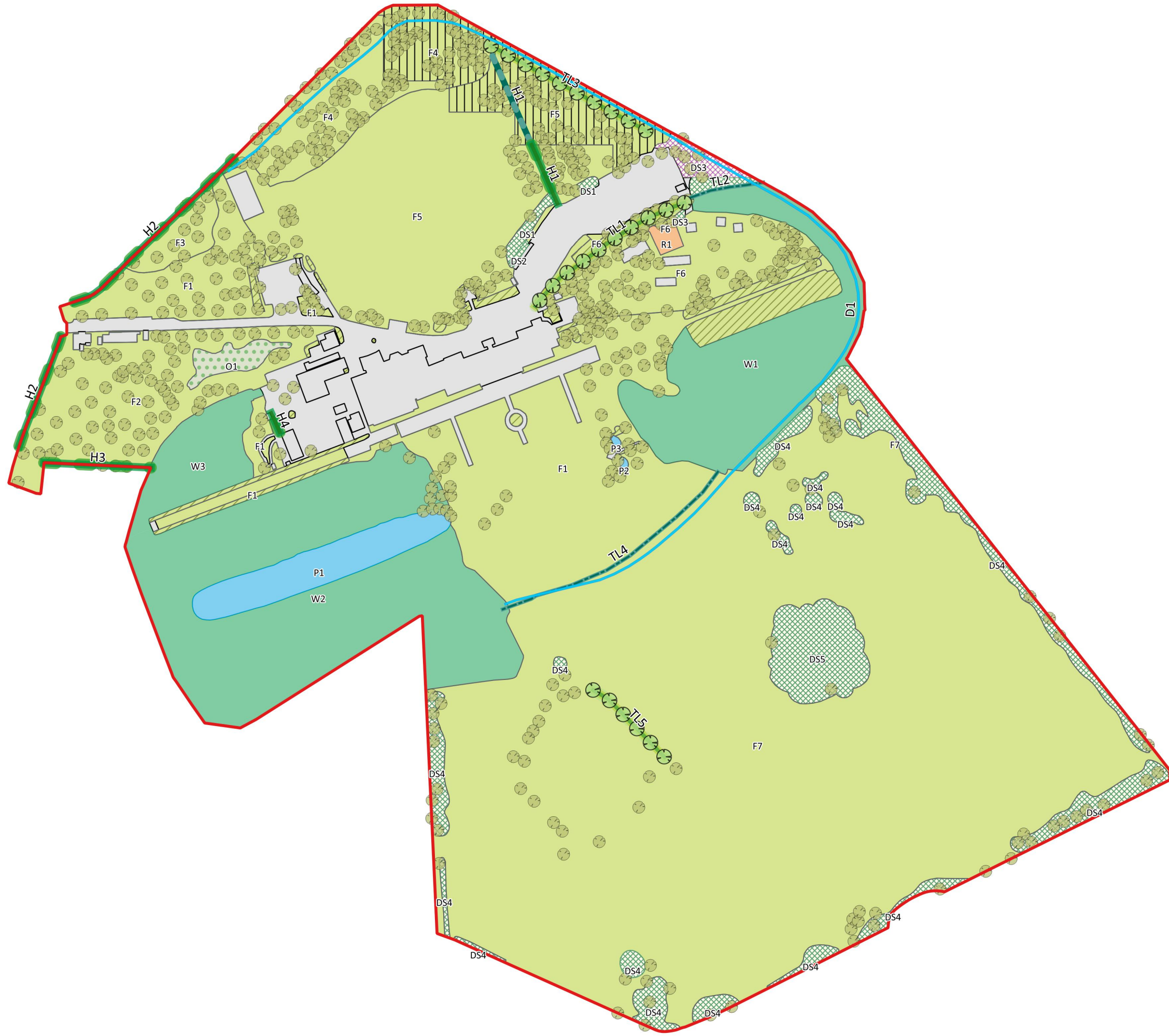
- 5.3.3 Therefore, any net biodiversity gain above 1%, should be registered as a positive benefit of the scheme.
- 5.3.4 Accordingly, it would be wrong to consider a 10% increase as anything other than a benefit of significance. Whilst the Act refers to 10%, this should not be construed as being a benchmark of acceptability, but as an illustration of a major step change in the level of benefit being delivered compared to the past. Achieving a 10% gain on a site is well beyond the adopted local policy framework and for the purposes of this application should be weighted as an enhancement that sits above and beyond.
- 5.3.5 In the context of these development proposals, the extent of gain goes well beyond a basic 1%. The commitment set out is to achieve a minimum of 10%, with the actual uplift achieved considerably beyond this (at circa 25%). The considerable extent of benefit and the weight to be attached to it should be recognized accordingly.
- 5.3.6 To contextualise this uplift further, it should be considered both in terms of the percentage, but also in the context of the scale of enhanced habitat. A gain on a site approximately 20ha in size will deliver enhanced habitats of great importance i.e. the biodiversity benefit conferred is substantially greater than for a small site or in other words bigger is better. In the context of this report, the proposals will deliver **c.107.01** new habitat area units, including an extensive wildflower meadow. At this scale of delivery, the biodiversity benefits of the scheme are clear and will provide a significant uplift in the local biodiversity resource. This should be accordingly noted as a substantial and stand out positive benefit of the scheme.

## 6 Summary and Conclusions

- 6.1.1 Aspect Ecology is advising Beechcroft Developments Ltd in respect of ecological issues relating to land at BBC Caversham, Berkshire proposed for redevelopment of the site to provide a care home, assisted living units, retirement dwellings and further residential development.
- 6.1.2 To inform the application, Aspect Ecology has undertaken a BNG assessment to determine the level of biodiversity net gain that could be achieved under the scheme, based on the Metric 3.1 calculation tool.
- 6.1.3 The metric demonstrates that a 37.57% biodiversity net gain is achieved in habitat units and 16.95% in hedgerow units.
- 6.1.4 The scale of benefit delivered by this net gain should be noted. A gain on a site approximately 20ha in size will deliver enhanced habitats of great importance i.e. the biodiversity benefit conferred is substantially greater than for a small site (or in other words bigger is better). In the context of this report, the proposals will deliver c.107 new habitat area units. At this scale of delivery, the biodiversity benefits of the scheme are clear and will provide a significant uplift in the local biodiversity resource. This should be accordingly noted as a substantial and stand out positive benefit of the scheme.

## **Plan 5022/BNG1:**

Pre-development Habitat Measurements



- Key:
- Site Boundary
  - Developed land; sealed surface (2.82ha)
  - Introduced shrub (0.66ha)
  - Mixed scrub (1.83ha)
  - Mixed scrub (Location Ecologically Desirable) (0.11ha)
  - Modified grassland (24.84ha)
  - Modified grassland (Location Ecologically Desirable) (1.15ha)
  - Other woodland; broadleaved (5.56ha)
  - Ponds (Non-Priority Habitat) (0.55ha)
  - Ruderal/Ephemeral (0.04ha)
  - Traditional orchards (0.12ha)
  - Ditch (0.98km)
  - Line of Trees - Associated with bank or ditch (0.26km)
  - Line of Trees (0.36km)
  - Native Hedgerow (0.4km)
  - Native Hedgerow (Location Ecologically Desirable) (0.07km)
  - Tree (555)

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|                                      |             |
|--------------------------------------|-------------|
| BBC Caversham                        | PROJECT     |
| Pre-development Habitat Measurements | TITLE       |
| 5022/BNG1                            | DRAWING NO. |
| A/BG                                 | REV         |
| January 2023                         | DATE        |

## **Plan 5022/BNG2:**

Post-development Habitat Measurements



Key:

- Site Boundary
- Proposed Developed land; sealed surface (1.6ha)
- Proposed Introduced shrub (0.35ha)
- Proposed Mixed scrub (0.02ha)
- Proposed Modified grassland (0.85ha)
- Proposed Modified grassland (Location Ecologically Desirable) (0.05ha)
- Proposed Other neutral grassland (17.55ha)
- Proposed Other neutral grassland (Location Ecologically Desirable) (0.17ha)
- Proposed Other woodland; broadleaved (0.23ha)
- Proposed Traditional orchards (0.14ha)
- Proposed Vegetated garden (0.75ha)
- Retained Developed land; sealed surface (1.72ha)
- Retained Introduced shrub (0.11ha)
- Retained Mixed scrub (1.76ha)
- Retained Mixed scrub (Location Ecologically Desirable) (0.11ha)
- Retained Modified grassland (5.32ha)
- Retained Modified grassland (Location Ecologically Desirable) (0.85ha)
- Retained Other woodland; broadleaved (5.48ha)
- Retained Ponds (Non-Priority Habitat) (0.55ha)
- Retained Traditional orchards (0.07ha)
- Proposed Native Species Rich Hedgerow (0.13Km)
- Retained Ditch (0.98Km)
- Retained Line of Trees - Associated with bank or ditch (0.26Km)
- Retained Line of Trees (0.34Km)
- Retained Native Hedgerow (0.39Km)
- Retained Native Hedgerow (Location Ecologically Desirable) (0.07Km)
- Proposed Tree (380)
- Retained Tree (421)

**aspect ecology**

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BBC Caversham

Post-development Habitat Measurements

5022/BNG2

A/BG

January 2023



PROJECT

TITLE

DRAWING NO.

REV

DATE

## **Appendix 5022/1:**

Biodiversity Impact Assessment Calculator (DEFRA v3.1) Extracts

|                                                                                                                                  |                       |        |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------|
| On-site baseline                                                                                                                 | <i>Habitat units</i>  | 284.83 |
|                                                                                                                                  | <i>Hedgerow units</i> | 5.52   |
|                                                                                                                                  | <i>River units</i>    | 3.92   |
| On-site post-intervention<br>(Including habitat retention, creation & enhancement)                                               | <i>Habitat units</i>  | 391.84 |
|                                                                                                                                  | <i>Hedgerow units</i> | 6.45   |
|                                                                                                                                  | <i>River units</i>    | 3.92   |
| On-site net % change<br>(Including habitat retention, creation & enhancement)                                                    | <i>Habitat units</i>  | 37.57% |
|                                                                                                                                  | <i>Hedgerow units</i> | 16.95% |
|                                                                                                                                  | <i>River units</i>    | 0.00%  |
| Off-site baseline                                                                                                                | <i>Habitat units</i>  | 0.00   |
|                                                                                                                                  | <i>Hedgerow units</i> | 0.00   |
|                                                                                                                                  | <i>River units</i>    | 0.00   |
| Off-site post-intervention<br>(Including habitat retention, creation & enhancement)                                              | <i>Habitat units</i>  | 0.00   |
|                                                                                                                                  | <i>Hedgerow units</i> | 0.00   |
|                                                                                                                                  | <i>River units</i>    | 0.00   |
| Total net unit change<br>(including all on-site & off-site habitat retention, creation & enhancement)                            | <i>Habitat units</i>  | 107.01 |
|                                                                                                                                  | <i>Hedgerow units</i> | 0.94   |
|                                                                                                                                  | <i>River units</i>    | 0.00   |
| Total on-site net % change plus off-site surplus<br>(including all on-site & off-site habitat retention, creation & enhancement) | <i>Habitat units</i>  | 37.57% |
|                                                                                                                                  | <i>Hedgerow units</i> | 16.95% |
|                                                                                                                                  | <i>River units</i>    | 0.00%  |
| Trading rules Satisfied?                                                                                                         | Yes ✓                 |        |

BBC Caversham, Berkshire  
A-1 Site Habitat Baseline

Condense / Show Columns  
Condense / Show Rows  
Main Menu  
Instructions

|     |                         | Habitats and areas             |                 | Distinctiveness | Condition                | Strategic significance                                     | Suggested action to address habitat losses                        | Ecological baseline |
|-----|-------------------------|--------------------------------|-----------------|-----------------|--------------------------|------------------------------------------------------------|-------------------------------------------------------------------|---------------------|
| Ref | Broad Habitat           | Habitat Type                   | Area (hectares) | Distinctiveness | Condition                | Strategic significance                                     |                                                                   | Total habitat units |
| 1   | Urban                   | Developed land, sealed surface | 2.82            | V Low           | N/A - Other              | Area/compensation not in local strategy/ no local strategy | Compensation Not Required                                         | 0.00                |
| 2   | Urban                   | Introduced shrub               | 0.66            | Low             | Condition Assessment N/A | Area/compensation not in local strategy/ no local strategy | Same distinctiveness or better habitat required ≥                 | 1.32                |
| 3   | Heathland and shrub     | Mixed scrub                    | 0.06            | Medium          | Moderate                 | Area/compensation not in local strategy/ no local strategy | Same broad habitat or a higher distinctiveness habitat required ≥ | 0.48                |
| 4   | Heathland and shrub     | Mixed scrub                    | 0.01            | Medium          | Poor                     | Area/compensation not in local strategy/ no local strategy | Same broad habitat or a higher distinctiveness habitat required ≥ | 0.04                |
| 5   | Heathland and shrub     | Mixed scrub                    | 0.05            | Medium          | Poor                     | Area/compensation not in local strategy/ no local strategy | Same broad habitat or a higher distinctiveness habitat required ≥ | 0.20                |
| 6   | Heathland and shrub     | Mixed scrub                    | 1.23            | Medium          | Poor                     | Area/compensation not in local strategy/ no local strategy | Same broad habitat or a higher distinctiveness habitat required ≥ | 4.92                |
| 7   | Heathland and shrub     | Mixed scrub                    | 0.48            | Medium          | Poor                     | Area/compensation not in local strategy/ no local strategy | Same broad habitat or a higher distinctiveness habitat required ≥ | 1.92                |
| 8   | Grassland               | Modified grassland             | 3.83            | Low             | Poor                     | Area/compensation not in local strategy/ no local strategy | Same distinctiveness or better habitat required ≥                 | 7.66                |
| 9   | Grassland               | Modified grassland             | 1.44            | Low             | Poor                     | Area/compensation not in local strategy/ no local strategy | Same distinctiveness or better habitat required ≥                 | 2.88                |
| 10  | Grassland               | Modified grassland             | 0.22            | Low             | Poor                     | Area/compensation not in local strategy/ no local strategy | Same distinctiveness or better habitat required ≥                 | 0.44                |
| 11  | Grassland               | Modified grassland             | 0.71            | Low             | Poor                     | Area/compensation not in local strategy/ no local strategy | Same distinctiveness or better habitat required ≥                 | 1.42                |
| 12  | Grassland               | Modified grassland             | 2.92            | Low             | Poor                     | Area/compensation not in local strategy/ no local strategy | Same distinctiveness or better habitat required ≥                 | 5.84                |
| 13  | Grassland               | Modified grassland             | 0.98            | Low             | Good                     | Area/compensation not in local strategy/ no local strategy | Same distinctiveness or better habitat required ≥                 | 5.88                |
| 14  | Grassland               | Modified grassland             | 14.74           | Low             | Poor                     | Area/compensation not in local strategy/ no local strategy | Same distinctiveness or better habitat required ≥                 | 29.48               |
| 15  | Woodland and forest     | Other woodland, mixed          | 1.68            | Medium          | Good                     | Area/compensation not in local strategy/ no local strategy | Same broad habitat or a higher distinctiveness habitat required ≥ | 20.16               |
| 16  | Woodland and forest     | Other woodland, mixed          | 3.35            | Medium          | Moderate                 | Area/compensation not in local strategy/ no local strategy | Same broad habitat or a higher distinctiveness habitat required ≥ | 26.80               |
| 17  | Woodland and forest     | Other woodland, mixed          | 0.53            | Medium          | Moderate                 | Area/compensation not in local strategy/ no local strategy | Same broad habitat or a higher distinctiveness habitat required ≥ | 4.24                |
| 18  | Lakes                   | Ponds (Non- Priority Habitat)  | 0.54            | Medium          | Poor                     | Area/compensation not in local strategy/ no local strategy | Same broad habitat or a higher distinctiveness habitat required ≥ | 2.16                |
| 19  | Lakes                   | Ponds (Non- Priority Habitat)  | 0.01            | Medium          | Moderate                 | Area/compensation not in local strategy/ no local strategy | Same broad habitat or a higher distinctiveness habitat required ≥ | 0.08                |
| 20  | Lakes                   | Ponds (Non- Priority Habitat)  | 0.005           | Medium          | Poor                     | Area/compensation not in local strategy/ no local strategy | Same broad habitat or a higher distinctiveness habitat required ≥ | 0.02                |
| 21  | Sparsely vegetated land | Ruderal/Ephemeral              | 0.04            | Low             | Poor                     | Area/compensation not in local strategy/ no local strategy | Same distinctiveness or better habitat required ≥                 | 0.08                |
| 22  | Grassland               | Traditional orchards           | 0.12            | High            | Poor                     | Area/compensation not in local strategy/ no local strategy | Same habitat required =                                           | 0.72                |
| 23  | Heathland and shrub     | Mixed scrub                    | 0.11            | Medium          | Poor                     | Location ecologically desirable but not in local strategy  | Same broad habitat or a higher distinctiveness habitat required ≥ | 0.48                |
| 24  | Grassland               | Modified grassland             | 0.43            | Low             | Poor                     | Location ecologically desirable but not in local strategy  | Same distinctiveness or better habitat required ≥                 | 0.95                |
| 25  | Grassland               | Modified grassland             | 0.72            | Low             | Poor                     | Location ecologically desirable but not in local strategy  | Same distinctiveness or better habitat required ≥                 | 1.58                |
| 26  | Urban                   | Urban Tree                     | 3.04            | Medium          | Moderate                 | Location ecologically desirable but not in local strategy  | Same broad habitat or a higher distinctiveness habitat required ≥ | 26.75               |
| 27  | Urban                   | Urban Tree                     | 17.29           | Medium          | Moderate                 | Area/compensation not in local strategy/ no local strategy | Same broad habitat or a higher distinctiveness habitat required ≥ | 138.32              |
| 28  |                         |                                |                 |                 |                          |                                                            |                                                                   |                     |
| 29  |                         |                                |                 |                 |                          |                                                            |                                                                   |                     |
| 30  | Total habitat area      |                                | 86.03           |                 |                          |                                                            |                                                                   | 284.83              |

| Biodiversity category biodiversity value |               |                         |                         |                   |            | Bespoke compensation agreed for unacceptable losses | Comments                                     |                   |
|------------------------------------------|---------------|-------------------------|-------------------------|-------------------|------------|-----------------------------------------------------|----------------------------------------------|-------------------|
| Area retained                            | Area enhanced | Baseline units retained | Baseline units enhanced | Area habitat lost | Units lost |                                                     | Assessor comments                            | Reviewer comments |
| 1.724                                    |               | 0.00                    | 0.00                    | 1.10              | 0.00       |                                                     |                                              |                   |
| 0.11                                     |               | 0.23                    | 0.00                    | 0.88              | 1.10       |                                                     |                                              |                   |
| 0.04                                     |               | 0.32                    | 0.00                    | 0.02              | 0.16       |                                                     | D61                                          |                   |
| 0.004                                    |               | 0.02                    | 0.00                    | 0.01              | 0.02       |                                                     | D62                                          |                   |
| 0.05                                     |               | 0.20                    | 0.00                    | 0.00              | 0.00       |                                                     | D63                                          |                   |
| 1.184                                    |               | 4.74                    | 0.00                    | 0.05              | 0.18       |                                                     | D64                                          |                   |
|                                          | 0.48          | 0.00                    | 1.92                    | 0.00              | 0.00       |                                                     | D65                                          |                   |
| 1.99                                     | 1.61          | 3.98                    | 3.22                    | 0.23              | 0.46       |                                                     | F1                                           |                   |
| 0.17                                     | 0.34          | 0.34                    | 0.68                    | 0.93              | 1.86       |                                                     | F2                                           |                   |
|                                          | 0.22          | 0.00                    | 0.44                    | 0.00              | 0.00       |                                                     | F3                                           |                   |
| 0.7                                      |               | 1.40                    | 0.00                    | 0.01              | 0.02       |                                                     | F4                                           |                   |
| 2.02                                     | 0.59          | 4.04                    | 1.18                    | 0.31              | 0.62       |                                                     | F5                                           |                   |
| 0.44                                     |               | 2.64                    | 0.00                    | 0.54              | 3.24       |                                                     | F6                                           |                   |
|                                          | 13.2          | 0.00                    | 28.40                   | 1.54              | 3.08       |                                                     | F7                                           |                   |
| 1.89                                     |               | 19.08                   | 0.00                    | 0.09              | 1.08       |                                                     | W1                                           |                   |
| 3.35                                     |               | 26.80                   | 0.00                    | 0.00              | 0.00       |                                                     | W2                                           |                   |
| 0.53                                     |               | 4.24                    | 0.00                    | 0.00              | 0.00       |                                                     | W3                                           |                   |
|                                          | 0.54          | 0.00                    | 2.16                    | 0.00              | 0.00       |                                                     | P1                                           |                   |
| 0.01                                     |               | 0.08                    | 0.00                    | 0.00              | 0.00       |                                                     | P6                                           |                   |
|                                          | 0.005         | 0.00                    | 0.02                    | 0.00              | 0.00       |                                                     | P9                                           |                   |
|                                          |               | 0.00                    | 0.00                    | 0.04              | 0.08       |                                                     | R1                                           |                   |
| 0.07                                     |               | 0.42                    | 0.00                    | 0.05              | 0.30       |                                                     | O1                                           |                   |
| 0.11                                     |               | 0.48                    | 0.00                    | 0.00              | 0.00       |                                                     | D63 (Ecologically desirable)                 |                   |
| 0.41                                     | 0.02          | 0.90                    | 0.04                    | 0.00              | 0.00       |                                                     | F4 (Ecologically desirable)                  |                   |
| 0.44                                     | 0.14          | 0.97                    | 0.31                    | 0.14              | 0.31       |                                                     | F5 (Ecologically desirable)                  |                   |
| 1.9                                      |               | 16.72                   | 0.00                    | 1.14              | 10.03      |                                                     | S3 medium sized trees in moderate condition  |                   |
| 13.51                                    |               | 108.08                  | 0.00                    | 3.78              | 30.24      |                                                     | 472 medium sized trees in moderate condition |                   |
|                                          |               |                         |                         |                   |            |                                                     |                                              |                   |
|                                          |               |                         |                         |                   |            |                                                     |                                              |                   |
|                                          |               |                         |                         |                   |            |                                                     |                                              |                   |
|                                          |               |                         |                         |                   |            |                                                     |                                              |                   |
| 30.36                                    | 17.16         | 196.67                  | 34.37                   | 10.88             | 88.79      |                                                     |                                              |                   |

Total area lost (excluding area of Urban trees and Green walls)  
5.50

| Post development/ post intervention habitats              |                                |                 |                 |                          |                                                            |                                               |                                      |                              |                         |                                                                                                                   |                   |
|-----------------------------------------------------------|--------------------------------|-----------------|-----------------|--------------------------|------------------------------------------------------------|-----------------------------------------------|--------------------------------------|------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------|
| Broad Habitat                                             | Proposed habitat               | Area (hectares) | Distinctiveness | Condition                | Strategic significance                                     | Temporal multiplier                           | Difficulty                           |                              | Habitat units delivered | Comments                                                                                                          |                   |
|                                                           |                                |                 | Distinctiveness | Condition                | Strategic significance                                     | Standard or adjusted time to target condition | Final time to target condition/years | Final difficulty of creation |                         | Assessor comments                                                                                                 | Reviewer comments |
| Urban                                                     | Developed land; sealed surface | 1.6             | V.Low           | N/A - Other              | Area/compensation not in local strategy/ no local strategy | Standard time to target condition applied     | 0                                    | Medium                       | 0.00                    | Proposed buildings                                                                                                |                   |
| Urban                                                     | Vegetated garden               | 0.75            | Low             | Condition Assessment N/A | Area/compensation not in local strategy/ no local strategy | Standard time to target condition applied     | 1                                    | Low                          | 1.45                    | Proposed private gardens                                                                                          |                   |
| Urban                                                     | Introduced shrub               | 0.354           | Low             | Condition Assessment N/A | Area/compensation not in local strategy/ no local strategy | Standard time to target condition applied     | 1                                    | Low                          | 0.68                    | Proposed ornamental shrubs                                                                                        |                   |
| Grassland                                                 | Modified grassland             | 0.9             | Low             | Moderate                 | Area/compensation not in local strategy/ no local strategy | Standard time to target condition applied     | 4                                    | Low                          | 3.12                    | Proposed amenity grass planting                                                                                   |                   |
| Heathland and shrub                                       | Mixed scrub                    | 0.021           | Medium          | Moderate                 | Area/compensation not in local strategy/ no local strategy | Standard time to target condition applied     | 5                                    | Low                          | 0.14                    | Mixed scrub planting                                                                                              |                   |
| Woodland and forest                                       | Other woodland; broadleaved    | 0.23            | Medium          | Moderate                 | Area/compensation not in local strategy/ no local strategy | Standard time to target condition applied     | 15                                   | Low                          | 1.08                    | Woodland to north of W1                                                                                           |                   |
| Grassland                                                 | Traditional orchards           | 0.143           | High            | Moderate                 | Area/compensation not in local strategy/ no local strategy | Standard time to target condition applied     | 20                                   | Low                          | 0.84                    |                                                                                                                   |                   |
| Grassland                                                 | Other neutral grassland        | 1.6             | Medium          | Good                     | Area/compensation not in local strategy/ no local strategy | Standard time to target condition applied     | 10                                   | Low                          | 13.45                   | Wildflower grassland planting                                                                                     |                   |
| Urban                                                     | Urban Tree                     | 0.2035          | Medium          | Moderate                 | Area/compensation not in local strategy/ no local strategy | Standard time to target condition applied     | 27                                   | Low                          | 0.62                    | Proposed urban trees (non-ecologically desirable location) - 50 trees assumed small size and moderate condition   |                   |
| Urban                                                     | Urban Tree                     | 0.053           | Medium          | Moderate                 | Location ecologically desirable but not in local strategy  | Standard time to target condition applied     | 27                                   | Low                          | 0.18                    | Proposed urban trees (ecologically desirable location) - 13 trees assumed small size and moderate condition       |                   |
| Urban                                                     | Urban Tree                     | 11.8136         | Medium          | Moderate                 | Location ecologically desirable but not in local strategy  | Standard time to target condition applied     | 27                                   | Low                          | 39.73                   | Proposed urban trees (non-ecologically desirable location) - 317 trees assumed medium size and moderate condition |                   |
|                                                           |                                |                 |                 |                          |                                                            |                                               |                                      |                              |                         |                                                                                                                   |                   |
| Total habitat area                                        |                                | 17.87           |                 |                          |                                                            |                                               |                                      |                              | 61.22                   |                                                                                                                   |                   |
| Site Area (Excluding area of Urban trees and Green walls) |                                | 8.60            |                 |                          |                                                            |                                               |                                      |                              |                         |                                                                                                                   |                   |

## BBC Caversham, Berkshire

### A-3 Site Habitat Enhancement

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B-1 Site Hedge Baseline

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|              | UK Habitats - existing habitats |                                               |             |                 | Habitat distinctiveness | Habitat condition                                          | Strategic significance              | Suggested action to address habitat losses | Ecological baseline  |
|--------------|---------------------------------|-----------------------------------------------|-------------|-----------------|-------------------------|------------------------------------------------------------|-------------------------------------|--------------------------------------------|----------------------|
| Baseline ref | Hedge number                    | Hedgerow type                                 | Length (km) | Distinctiveness | Condition               | Strategic significance                                     |                                     |                                            | Total hedgerow units |
| 1            | H1                              | Native Hedgerow                               | 0.05        | Low             | Good                    | Area/compensation not in local strategy/ no local strategy | Same distinctiveness band or better |                                            | 0.30                 |
| 2            | H2                              | Native Hedgerow                               | 0.25        | Low             | Good                    | Area/compensation not in local strategy/ no local strategy | Same distinctiveness band or better |                                            | 1.50                 |
| 3            | H3                              | Native Hedgerow                               | 0.08        | Low             | Good                    | Area/compensation not in local strategy/ no local strategy | Same distinctiveness band or better |                                            | 0.48                 |
| 4            | H4                              | Native Hedgerow                               | 0.02        | Low             | Good                    | Area/compensation not in local strategy/ no local strategy | Same distinctiveness band or better |                                            | 0.12                 |
| 5            | TL1                             | Line of Trees                                 | 0.14        | Low             | Moderate                | Area/compensation not in local strategy/ no local strategy | Same distinctiveness band or better |                                            | 0.56                 |
| 6            | TL2                             | Line of Trees - Associated with bank or ditch | 0.06        | Low             | Good                    | Area/compensation not in local strategy/ no local strategy | Same distinctiveness band or better |                                            | 0.36                 |
| 7            | TL3                             | Line of Trees                                 | 0.14        | Low             | Moderate                | Location ecologically desirable but not in local strategy  | Same distinctiveness band or better |                                            | 0.62                 |
| 8            | TL4                             | Line of Trees - Associated with bank or ditch | 0.2         | Low             | Moderate                | Area/compensation not in local strategy/ no local strategy | Same distinctiveness band or better |                                            | 0.80                 |
| 9            | TL5                             | Line of Trees                                 | 0.08        | Low             | Moderate                | Area/compensation not in local strategy/ no local strategy | Same distinctiveness band or better |                                            | 0.32                 |
| 10           | H1                              | Native Hedgerow                               | 0.07        | Low             | Good                    | Location ecologically desirable but not in local strategy  | Same distinctiveness band or better |                                            | 0.46                 |
| 11           |                                 |                                               |             |                 |                         |                                                            |                                     |                                            |                      |
| 12           |                                 |                                               |             |                 |                         |                                                            |                                     |                                            |                      |
| 13           |                                 |                                               |             |                 |                         |                                                            |                                     |                                            |                      |
| 14           |                                 |                                               |             |                 |                         |                                                            |                                     |                                            |                      |
| 15           |                                 |                                               |             |                 |                         |                                                            |                                     |                                            |                      |
|              |                                 |                                               | 1.09        |                 |                         |                                                            |                                     |                                            | 5.82                 |

| Retention category biodiversity value |                 |                |                |             |            | Comments          |                   |
|---------------------------------------|-----------------|----------------|----------------|-------------|------------|-------------------|-------------------|
| Length retained                       | Length enhanced | Units retained | Units enhanced | Length lost | Units lost | Assessor comments | Reviewer comments |
| 0.05                                  |                 | 0.30           | 0.00           | 0.00        | 0.00       |                   |                   |
| 0.25                                  |                 | 1.50           | 0.00           | 0.00        | 0.00       |                   |                   |
| 0.08                                  |                 | 0.48           | 0.00           | 0.00        | 0.00       |                   |                   |
|                                       |                 | 0.00           | 0.00           | 0.02        | 0.12       |                   |                   |
| 0.13                                  |                 | 0.52           | 0.00           | 0.01        | 0.04       |                   |                   |
| 0.06                                  |                 | 0.36           | 0.00           | 0.00        | 0.00       |                   |                   |
| 0.14                                  |                 | 0.62           | 0.00           | 0.00        | 0.00       |                   |                   |
| 0.2                                   |                 | 0.80           | 0.00           | 0.00        | 0.00       |                   |                   |
| 0.08                                  |                 | 0.32           | 0.00           | 0.00        | 0.00       |                   |                   |
| 0.07                                  |                 | 0.46           | 0.00           | 0.00        | 0.00       |                   |                   |
|                                       |                 |                |                |             |            |                   |                   |
|                                       |                 |                |                |             |            |                   |                   |
|                                       |                 |                |                |             |            |                   |                   |
| 1.08                                  | 0.00            | 5.38           | 0.00           | 0.03        | 0.16       |                   |                   |

B-2 Site Hedge Creation

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|              |                  | Proposed habitats            |             | Habitat distinctiveness | Habitat condition | Strategic significance                                     | Temporal multiplier                           |                                      | Difficulty risk multipliers  | Hedge units delivered | Comments          |                   |
|--------------|------------------|------------------------------|-------------|-------------------------|-------------------|------------------------------------------------------------|-----------------------------------------------|--------------------------------------|------------------------------|-----------------------|-------------------|-------------------|
| Baseline ref | New hedge number | Habitat type                 | Length (km) | Distinctiveness         | Condition         | Strategic significance                                     | Standard or adjusted time to target condition | Final time to target condition/years | Final difficulty of creation |                       | Assessor comments | Reviewer comments |
| 1            | H5               | Native Species Rich Hedgerow | 0.11        | Medium                  | Good              | Area/compensation not in local strategy/ no local strategy | Standard time to target condition applied     | 12                                   | Low                          | 0.86                  |                   |                   |
| 2            | H6               | Native Species Rich Hedgerow | 0.03        | Medium                  | Good              | Area/compensation not in local strategy/ no local strategy | Standard time to target condition applied     | 12                                   | Low                          | 0.23                  |                   |                   |
| 3            |                  |                              |             |                         |                   |                                                            |                                               |                                      |                              |                       |                   |                   |
| 4            |                  |                              |             |                         |                   |                                                            |                                               |                                      |                              |                       |                   |                   |
| 5            |                  |                              |             |                         |                   |                                                            |                                               |                                      |                              |                       |                   |                   |
| 6            |                  |                              |             |                         |                   |                                                            |                                               |                                      |                              |                       |                   |                   |
| 7            |                  |                              |             |                         |                   |                                                            |                                               |                                      |                              |                       |                   |                   |
|              |                  |                              | 0.14        |                         |                   |                                                            |                                               |                                      |                              | 1.10                  |                   |                   |

C-1 Site River Baseline

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| Existing river type |            |             | Habitat distinctiveness | Habitat condition | Strategic significance                          | Watercourse encroachment | Riparian encroachment  | Suggested action | Ecological baseline | Retention category biodiversity value |                 |                |                |             |            | Comments          |                   |
|---------------------|------------|-------------|-------------------------|-------------------|-------------------------------------------------|--------------------------|------------------------|------------------|---------------------|---------------------------------------|-----------------|----------------|----------------|-------------|------------|-------------------|-------------------|
| Baseline ref        | River type | Length (km) | Distinctiveness         | Condition         | Strategic significance                          | Extent of encroachment   | Extent of encroachment |                  | Total river units   | Length retained                       | Length enhanced | Units retained | Units enhanced | Length Lost | Units Lost | Assessor Comments | Reviewer comments |
| 1                   | Ditches    | 0.98        | Medium                  | Poor              | Low potential/action not identified in any plan | No Encroachment          | No Encroachment        | Restore          | 3.92                | 0.98                                  |                 | 3.92           | 0.00           | 0.00        | 0.00       | Ditch D1          |                   |
| 2                   |            |             |                         |                   |                                                 |                          |                        |                  |                     |                                       |                 |                |                |             |            |                   |                   |
| 3                   |            |             |                         |                   |                                                 |                          |                        |                  |                     |                                       |                 |                |                |             |            |                   |                   |
| 4                   |            |             |                         |                   |                                                 |                          |                        |                  |                     |                                       |                 |                |                |             |            |                   |                   |
| 5                   |            |             |                         |                   |                                                 |                          |                        |                  |                     |                                       |                 |                |                |             |            |                   |                   |
| 6                   |            |             |                         |                   |                                                 |                          |                        |                  |                     |                                       |                 |                |                |             |            |                   |                   |
|                     |            | 0.98        |                         |                   |                                                 |                          |                        |                  | 3.92                | 0.98                                  | 0.00            | 3.92           | 0.00           | 0.00        | 0.00       |                   |                   |

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The logo for Aspect Ecology Ltd features the word "aspect" in a white, lowercase, sans-serif font. A thin, light grey diagonal line is positioned above the "t", extending from the top of the letter to the right.

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