Technical Briefing Note

Project: Land at North West Bicester

Technical Briefing Note: Biodiversity Net Gain Assessment Using DEFRA Biodiversity Metric 2.0 Calculation Tool.

Date: 07 April 2021

1. Introduction

1.1. Aspect Ecology has been appointed by Firethorn Developments Ltd. to carry out a Biodiversity Net Gain Assessment (BNGA) in relation to the proposed development of land at North West Bicester (hereafter referred to as the 'Site'[1]).

1.2. The Site is proposed for development of a new neighbourhood of up to 550 homes, associated access and landscaping. Aspect Ecology undertook a Preliminary Ecological Appraisal of the Site, the findings of which are detailed in the report 'Land at North West Bicester – Preliminary Ecological Appraisal (April 2021)' to inform the development.

1.3. This technical briefing note carries out a BNGA of the proposals, by assessing quantifiable habitats losses and gains by the completion of the DEFRA Biodiversity Metric 2.0 Biodiversity Impact Assessment Calculator (BIC), and by carrying out an assessment of qualitative net gains (such as faunal enhancements) which can be delivered as part of the proposals. Further detail on this is set out below. This BNGA is informed by the above Preliminary Ecological Appraisal report.

Biodiversity Net Gains - Current and Emerging Policy Position

1.4. There is currently no mandatory requirement to demonstrate or quantify biodiversity net gains in national policy, rather, the National Planning Policy Framework (NPPF, 2019) states "*planning policies and decisions should… identify and pursue opportunities for securing measurable net gains for biodiversity*". However, the upcoming Environment Bill, which will set out a plan of how to protect and improve the natural environment in the UK, will likely include a requirement for developments to demonstrate they can achieve a 10% net gain in biodiversity. At the time of writing, the Bill has not been brought into law, and is currently at the House of Commons Report stage. However, it is anticipated that the Bill will be passed in the near future.

1.5. In addition to this, ahead of the upcoming Environment Bill, and in response to advances in quantifying habitat losses and gains over recent years, the requirement to quantify net gains is now finding its way into local policy. The current Cherwell District Local Plan 2011 – 2031 (adopted in July 2015) references biodiversity net gain within Policy ESD10 which states "*In considering proposals for development, a net gain in biodiversity will be sought by protecting,*

[1] The extended application boundary including the road network has been excluded from the assessment as it is understood there will be no habitat losses or gains here.

managing, enhancing and extending existing resources, and by creating new resources" and also within Policy Bicester 1: North West Bicester Eco-Town. The Cherwell District Community Nature Plan 2020 – 2022 also states "*…seek a minimum of 10% net gain in biodiversity when considering proposals for development*" as one of the targets within the document. Specific reference is further made to net gain within the North-West Bicester Supplementary Planning Document (SPD) (February 2016) which states *'A biodiversity strategy which is part of an approved strategy for the whole masterplan area, shall accompany all planning applications. It should include an accepted numerical metric to show that a net gain in biodiversity will be achieved…'.*

Selection and Limitations of Biodiversity Impact Calculators

1.6. A number of BICs are currently in circulation, with the original and most established being that produced by the Environment Bank. Since the Environment Bank BIC was produced, several other calculators have been developed by different local authorities, for example in Warwickshire and the Thames Valley. It is understood that the upcoming Environment Bill will encourage/mandate the use of the DEFRA BIC, and accordingly the DEFRA BIC (also known as the DEFRA metric 2.0) has been used in this application, with the results set out in this Technical Note.

1.7. The DEFRA metric and its associated guidance documents are not currently finalised, and currently a Beta Testing version is in circulation. DEFRA carried out a consultation on the use of the metric, which closed on 29th February 2020[2], and accordingly it is expected that both the metric and guidance will be updated to take into account user feedback and a number of errors within the metric itself. As such, although the DEFRA metric has been used for this application to most accurately reflect the upcoming legislative and policy requirements, it is by no means a finalised tool.

1.8. A further limitation of the use of metrics is that they only quantify habitat losses and gains. Therefore, other measures which can deliver biodiversity net gains, such as the delivery of faunal enhancements (such as those proposed within Chapter 10 'Biodiversity' of the Land at North West Bicester Environmental Statement) or ecosystems services are not taken into account. This is reflected in current guidance for assessment of biodiversity net gains[3], which states that:

"*Measures of biodiversity are not absolute values. They are proxies for biodiversity value before and after a development and might not capture all the features affected. For example, Defra's biodiversity metric calculates biodiversity units, but does not reflect other features such as a vital wildlife corridor within an urban locality. Both quantitative and qualitative assessments should be used when designing, implementing, maintaining and monitoring biodiversity net gains to capture all aspects of biodiversity, and to avoid decisions being based purely on numbers*".

1.9. Therefore in accordance with this guidance, this Technical Note carries out an exercise to quantify habitat losses and gains by completion of the DEFRA metric, but also assesses the other qualitative gains that would be delivered as part of the proposals in order to carry out a full and complete assessment of the ability of the proposals to deliver net gains. The assessment is set out below.

[2] https://consult.defra.gov.uk/natural-england/the-biodiversity-metric-2-0/
[3] CIEEM, IEMA and CIRIA (2019) Biodiversity Net Gains – Good Practice Principles for Development Gain, A Practical Guide

2. Biodiversity Impact Assessment – Quantitative – Completion of DEFRA Metric 2.0

Baseline Information

2.1. The existing habitats at the Site have been identified and quantified based on the results of the Phase 1 Habitat survey carried out in May 2020. The post-development habitats have been devised in partnership with LDA Design landscape architects and have used the Landscape Strategy Plan (ref: DWG No. 7608_001), dated November 2020, submitted with the application.

2.2. This section references, justifies and discusses the habitat categories and their condition chosen from the drop down menus of the DEFRA Biodiversity Metric 2.0 BIC. The '**Ref no.**' refers to the 'Ref' column of the BIC for ease of reference. For all of the created habitats, the DEFRA 2.0 metric automatically assigns the timeframe associated with achieving the targeted condition, which cannot be amended as part of the assessment. A copy of the sections of the metric which were completed for the assessment (blank tabs are not included) is attached below, along with Plan 5903/BIA1 which shows the existing habitats measured for the quantitative assessment and Plan 5903/BIA2 which shows the proposed habitats measured for the quantitative assessment.
<u>On-Site Habitat Baseline</u>

2.3. The Phase 1 habitat survey carried out in May 2020 identified that the majority of the site is dominated by Site level value semi-improved grassland, a range of further habitats of negligible ecological value are present on-Site whilst only the hedgerows, treelines and woodland within the Site boundary are considered to be of Local level ecological value. The recorded habitats within the Site, along with their current condition and whether they are to be retained, lost or enhanced under the proposals is detailed below.

2.4. **Ref. 1, 2 and 7 – 'Grassland – Other Neutral Grassland' – condition 'Moderate'.** This habitat comprises areas of long-sward and short-sward semi-improved grassland present throughout the Site. The fields within the central portion of the Site are dominated by Cock's-foot *Dactylis glomerata*, with a high incidence of Cow Parsley *Anthriscus sylvestris* throughout. Other species recorded include Meadow Foxtail *Alopecurus pratensis*, Yorkshire-fog *Holcus lanatus*, Soft Brome *Bromus hordeaceus*, Bent *Agrostis* sp., Barren Brome *Anisantha sterilis*, False Oat-grass *Arrhenatherum elatius*, Common Nettle *Urtica dioica*, Cleavers *Galium aparine*, Common Hogweed *Heracleum sphondylium*, Field Bindweed *Convolvulus arvensis*, Red Clover *Trifolium pratense*, Dove's-foot Crane's-bill *Geranium molle*, Goat's-beard *Tragopogon pratensis*, Common Field-speedwell *Veronica persica*, Fat-hen *Chenopodium album*, Smooth Sow-thistle *Sonchus oleraceus* and Black-bindweed *Fallopia convolvulus*.

2.5. The fields within the eastern portion of the Site are similar in nature to the central fields, with the sward dominated by Soft Brome, Cock's-foot and Meadow Foxtail with a lower incidence of Cow Parsley. Additional species included in these fields included Smooth Meadow-grass *Poa pratensis,* Perennial Ryegrass *Lolium perenne*, Dandelion *Taraxacum* agg., Field Bindweed, Creeping Thistle *Cirsium arvense*, Creeping Buttercup *Ranunculus repens*, Yarrow *Achillea millefolium,* Common Nettle, Broad-leaved Dock *Rumex obtusifolius*, Spear Thistle *Cirsium vulgare*, Bulbous Buttercup *Ranunculus bulbosus*, Black Bindweed, Common Mallow *Malva sylvestris* and Wild Teasel *Dipsacus fullonum*. A small mown grassland field is also present in the far south-east of the Site with dominant species including Meadow-grass *Poa sp*. and Yorkshire-fog, with Cock's-foot, Perennial Ryegrass, False Oat-grass and a lower incidence of herbaceous species than grassland elsewhere within the Site. Herbaceous species present include Creeping Buttercup, Cow Parsley, Dandelion agg., Creeping Thistle, Broad-leaved Dock, Field Bindweed, Spear Thistle and Creeping Cinquefoil *Potentilla reptans*.

2.6. The semi-improved grassland supports a low diversity of common and widespread species, and is therefore considered to form an important ecological feature at the Site level only. As such, it is considered to be of 'Moderate' condition. The majority of the grassland is to be lost under the proposals, with some areas to be retained and some areas subject to accelerated succession to woodland under the proposals (see below).

2.7. **Ref. 3 – 'Cropland – Cereal Crops' – condition 'N/A – Agricultural'.** This habitat comprises the arable field in the north-western portion of the Site. The condition is auto-populated by the metric to 'N/A – Agricultural'. The arable field is to be lost to the proposals and is to be replaced with the proposed residential development area, in addition to areas of wildflower grassland and native shrub planting.

2.8. **Ref. 4 – 'Woodland and Forest – Other Woodland; Broadleaved – condition 'Moderate'.** This habitat comprises the two areas of deciduous woodland present along the south-western Site boundary. The western woodland comprises a variety of semi-mature to mature species, dominated by Ash *Fraxinus excelsior* and Field Maple *Acer campestre* with Hawthorn *Crataegus monogyna* also present. The understorey was recorded to be sparse in areas, with species including Elder *Sambucus nigra*, Ash, Hawthorn, and Bramble *Rubus fruticosus* agg., whilst the ground flora was recorded to be dominated by Common Nettle, with Cow Parsley, Dog's Mercury *Mercurialis perennis,* Ivy *Hedera helix,* Garlic Mustard *Alliaria petiolata*, Lords-and-Ladies *Arum maculatum*, Cleavers and Ground-ivy *Glechoma hederacea*.

2.9. The eastern woodland is separated from the western portion by a small area of grassland and was recorded to be semi-mature to mature in nature, dominated by Ash and Hawthorn with Wild Cherry *Prunus avium*, Sycamore *Acer pseudoplatanus*, English Elm *Ulmus procera*, Horse Chestnut and Field Maple also present. A relatively dense understorey was recorded through the majority of the woodland, dominated by Elder with English Elm, Wayfaring-tree *Viburnum lantana*, Hazel *Corylus avellana* and Bramble also present. The ground flora within the woodland was recorded to be dominated by a dense carpet of Dog's-mercury and Common Nettle with Cow Parsley, Lords-and-Ladies, Cleavers and Ground-ivy.

2.10. The woodlands are considered to form an important ecological features at the local level and a 'Moderate' condition is therefore considered appropriate. This habitat will be fully retained and enhanced under the proposals, with further native tree and shrub planting proposed across the Site.

2.11. **Ref. 5 – 'Heathland and Shrub – Mixed Scrub' – condition 'Poor'.** A number of areas of scattered and dense scrub are present within the Site, with species including Bramble, Elder, Dog-rose *Rosa canina*, Hawthorn, Elm sp., and Blackthorn *Prunus spinosa*. Due to the limited species present, and the relatively small extent of the habitat, scrub is considered to be of 'Poor' condition. The scrub habitat within the Site will be lost under the proposals, with further native shrub and scrub planting proposed throughout the Site, particularly as part of the proposed woodland buffer planting.

2.12. **Ref. 6 – 'Urban – Developed Land; Sealed Surface' – condition 'N/A – Other'.** This habitat comprises existing areas of hardstanding present within the Site boundary. The condition is auto-populated by the metric to 'N/A – Other'.

<u>On-Site Hedgerow Baseline</u>

2.13. **Ref. 1 'Native Hedgerow' – condition 'Moderate'.** This habitat comprises the existing hedgerows present within the Site (hedgerows H1, H7, H10, H11 and H12), with species recorded including Hawthorn, Elm, Dog-rose, Beech *Fagus sylvatica*, Bramble, Elder, Field Maple, Blackthorn, and Spindle. The majority of hedgerows are to be retained under the proposals, with only small sections requiring removal to facilitate access and road construction.

2.14. **Ref. 2 'Native Species Rich Hedgerow' – condition 'Moderate'.** This habitat comprises the existing species-rich hedgerows present within the Site (hedgerows H2, H3, H4, H5, H6, H8 and H9), with species recorded including Hawthorn, Elm, Dog-rose, Beech *Fagus sylvatica*, Bramble, Elder, Field Maple, Blackthorn, Large-leaved Lime *Tilia platyphyllos*, Horse Chestnut *Aesculus hippocastanum*, Oak *Quercus* sp., Ash, Apple *Malus* sp., Wild Cherry, Privet, Wayfaring Tree and Spindle. The majority of hedgerows are to be retained under the proposals, with only small sections requiring removal to facilitate access and road construction.

2.15. **Ref. 3 – 'Line of Trees (Ecologically Valuable)' – condition 'Moderate'.** This habitat comprises three lines of trees present within the Site, with the eastern tree line comprising Crack Willow, Ash, Hawthorn, Poplar sp., and Elder. The tree line along the eastern boundary of the central area comprises Hawthorn, Elder, Field Maple, Blackthorn, Elm, Wayfaring Tree *Viburnum lantana*, Ash, *Pinus* sp., and Sycamore whilst the tree line in the central portion of the Site includes Oak *Quercus* sp., Field Maple, Sycamore, Hawthorn, Ash, Blackthorn, Privet *Ligustrum vulgare*, Dog-rose, Bramble, Dogwood *Cornus sanguinea* and Spindle *Euonymus europaeus*. These are all considered to be of 'Moderate' condition, and are to be largely retained under the proposals with only small sections requiring removal to facilitate road construction.

On-Site Habitat Creation (Post-development)

2.16. The proposed habitats on Site are shown on Plan 5903/BNGA2 and are described below and have been measured and categorised in the metric using the updated layout submitted with the application.

2.17. **'Grassland – Other Neutral Grassland' – condition 'Moderate'.** This habitat has been allocated to areas of new wildflower grassland not associated with amenity areas around the buildings. As these are to be in publically accessible areas, a target condition of 'Moderate' is considered appropriate, which the metric auto-populates as being achievable in 10 years.

2.18. **'Urban – Amenity Grassland' – condition 'Poor'.** This habitat comprises the new areas of amenity grassland and will be located around the Site. This habitat will comprise a limited range of common and widespread botanical species and it is therefore considered that targeting a 'Poor' condition is appropriate, which the metric auto-populates as being achievable in 1 year.

2.19. **'Grassland – Other Neutral Grassland' – condition 'Moderate'.** This habitat comprises the new drainage features proposed within the Site, comprising swales with marginal vegetation planting in the form of a wetland grassland mix. A 'Moderate' target condition is considered achievable, which the metric auto-populates as being achievable in 3 years.

2.20. **'Grassland – Other Neutral Grassland' – condition 'Moderate'.** This habitat has been allocated to areas of new species-rich grassland not associated with amenity areas around the buildings. As these are to be in publically accessible areas, a target condition of 'Moderate' is considered appropriate, which the metric auto-populates as being achievable in 10 years.

2.21. **'Lakes – Ponds (Non-Priority Habitat)' – condition 'Moderate'.** This habitat comprises new SuDS proposed within the Site. Due to their proposed locations within areas of public open space, a 'Moderate' target condition is considered appropriate, which the metric auto-populates as being achievable in 3 years.

2.22. **'Urban – Allotments' – condition 'Moderate'.** This habitat comprises the new allotment areas proposed within the Site. Due to their intended use as accessible areas of public open space, it is considered that targeting a 'Moderate' condition is appropriate, which the metric auto-populates as being achievable in 1 year.

2.23. **'Grassland – Other Neutral Grassland' – condition 'Poor'.** This habitat comprises the new play areas proposed within the Site, comprising a split of 25% grassland meadow and 75% surfaced area to account for a proportion of play space being 'natural' in nature . A 'Poor' target condition is therefore considered appropriate, which the metric auto-populates as being achievable in 1 year.

2.24. **'Urban – Developed Land; Sealed Surface' – condition 'N/A – Other'.** This habitat comprises the new play areas proposed within the Site, comprising a split of 25% grassland meadow and 75% surfaced area to account for the more traditional play spaces. The condition is auto-populated by the metric to 'N/A – Other'.

2.25. **'Heathland and Shrub – Mixed Scrub' – condition 'Moderate'.** This habitat has been allocated to areas of new native shrub planting proposed within the new woodland buffer planting area. Through the planting of a variety of native species and appropriate management, it is considered that a 'Moderate' target condition is achievable, which the metric auto-populates as being achievable in 3 years.

2.26. **'Urban – Suburban / Mosaic of Developed / Natural Surface' – condition 'Poor'.** This habitat is comprised of the new residential buildings, private gardens and areas of hardstanding proposed within the Site. As such, a target condition of 'Poor' is considered appropriate, which the metric auto-populates as being achievable in 1 year.

2.27. **'Heathland and Shrub – Mixed Scrub' – condition 'Moderate'.** This habitat has been allocated to areas of new native shrub planting proposed within the Site. Through the planting of a variety of native species and appropriate management, it is considered that a 'Moderate' target condition is achievable, which the metric auto-populates as being achievable in 3 years.

<u>On-Site Hedge Creation (Post-development)</u>

2.28. **'Native Species Rich Hedgerow' – condition 'Moderate'.** This habitat comprises new species rich native hedgerow planting within the Site to provide connectivity with existing linear features. With native species proposed, a target condition of 'Moderate' has been selected. The metric automatically populates this as being achievable in 5 years. These hedgerows are also anticipated to provide potential foraging opportunities for a number of faunal species in the local area.

<u>On-Site Habitat Enhancement (Post-development)</u>

2.29. **'Woodland and Forest – Other Woodland; Broadleaved – condition 'Fairly Good'.** This habitat comprises the existing areas of woodland which are to be enhanced from 'Woodland and Forest – Other Woodland; Broadleaved' (condition 'Moderate') to 'Woodland and Forest – Other Woodland; Broadleaved' (condition 'Fairly Good') through the planting of new woodland

understorey and wildflower species appropriate to conditions within the woodland in addition to creation of new woodland glades and clearings. The woodland will also be brought into active, long-term management to improve its condition. The enhanced woodland habitat is anticipated to provide further potential foraging opportunities for a number of faunal species in the local area. A target condition of 'Fairly Good' has been selected, which the metric auto-populates as being achievable in 10 years.

On-Site Hedge Enhancement (Post-development)

2.30. **'Native Species Rich Hedgerow' – condition 'Moderate'.** This habitat comprises the existing native hedgerows within the Site which are to be enhanced from 'Native Hedgerow' (condition 'Moderate') to 'Native Species Rich Hedgerow' (condition 'Moderate') through the planting of additional native species. A target condition of 'Moderate' has been selected, which the metric auto-populates as being achievable in 5 years.

On-Site Habitat Succession (Post-development)

2.31. **'Woodland and Forest – Other Woodland; Broadleaved' – condition 'Moderate'.** A new area of woodland is to be created adjacent to the existing areas of woodland present within the Site through Accelerated Succession, whereby an area of woodland is created on existing habitats (in this case semi-improved grassland). This will both strengthen the existing woodland and also strengthen the buffer between the woodland and the development. Through the planting of both native tree and shrub species, it is considered that a 'Moderate' condition is achievable, which the metric auto-populates as being achievable in 30 years.

3. Quantitative Assessment – Results and Analysis

Results and Analysis

3.1. With the condition of the existing habitats currently present within the Site and with the habitats to be created as part of the proposals (as justified above) input into the DEFRA 2.0 metric, the total net percentage change for the proposals is a net gain of 28.79 Habitat Biodiversity Units (a 16.69% increase) and a net gain of 2.73 Hedgerow Units (a 14.36% increase), as shown on the "Headline Results" page of the metric (see below).

3.2. Accordingly, the redevelopment proposals achieve a quantifiable biodiversity net gain in relation to both habitats and linear features. The habitat and hedgerow gains are well in excess of the 10% required by Cherwell District Council (CDC) and the 10% gain likely to be brought forward in the upcoming Environment Bill.

4. Biodiversity Impact Assessment – Qualitative

4.1. In addition to the measurable habitat benefits described above, which is well above 10% in relation to habitat areas, it is anticipated that the development will deliver a number of qualitative benefits as detailed below.

Qualitative – Tangible

4.2. Outside of the constraints of the DEFRA metric, which only takes into account habitat losses and gains, a number of other tangible biodiversity gains can be realised as a result of the proposals, including the following:

- Installation of faunal enhancements targeted to specific species such as bat boxes on trees and integrated into new buildings which would provide new roosting opportunities for a number of both National and Local Priority Species of bats in the area including Soprano Pipistrelle *Pipistrellus pygmaeus*;
- The provision of bird nesting boxes for a range of common garden birds and for Barn Owl *Tyto alba* in addition to integrated roosting units into a proportion of new buildings (i.e. for Swifts *Apus apus* and the Priority Species House Sparrow *Passer domesticus*);
- The provision of Hedgehog nest domes, which would increase nesting and hibernation sites for Hedgehog (a Priority Species) and 'Hedgehog highways'/gaps at the base of garden fences, to allow continued foraging and commuting by the species throughout the Site;
- The provision of hibernacula and log-piles to benefit reptiles, amphibians and invertebrates;
- Invertebrate hotels and butterfly banks to benefit a range of invertebrate species;
- Introduction of more diverse habitat types, for example by enhancing the retained woodlands and by planting a diverse range of native tree and shrub species where currently the Site is relatively species-poor;
- Introduction of new habitat types including flower-rich grassland and SuDS/ponds; and
- Bringing the Site into long-term active management to benefit biodiversity, which could be secured for example by a planning condition for a LEMP.

Qualitative – Non-tangible

4.3. Additionally, a number of qualitative, non-tangible biodiversity gains can be achieved. For example, ecosystems, and the biodiversity they contain, provide benefits for people. These are called ecosystems services and broadly comprise:

- Provisioning services e.g. food and water;
- Regulating services e.g. soil formation, climate control, flood regulation and pollination; and
- Supporting services e.g. nutrient cycles and oxygen production.

4.4. The proposals could contribute to all of these ecosystems services.

5. Conclusions

5.1. The Biodiversity Impact Assessment finds that the redevelopment proposals themselves deliver a quantifiable net gain for biodiversity in relation to habitats, which at a **net gain of 16.69%** for habitats and a **net gain of 14.36%** for hedgerows**,** is significantly in excess of the 10% required by CDC and likely to be brought forward in the future Environment Bill. In addition to these quantifiable net gains, a range of qualitative gains can also be delivered on Site, such as the provision of faunal enhancements targeted to national and local Priority Species. Accordingly, it is considered the redevelopment proposals comply with existing and emerging policy (local and national) and legislation.

Headline Results

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On-site baseline	*Habitat units*	172.47
	Hedgerow units	19.04
	River units	0.00
On-site post-intervention (Including habitat retention, creation, enhancement & succession)	*Habitat units*	201.26
	Hedgerow units	21.77
	River units	0.00
Off-site baseline	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation, enhancement &	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention/creation)	*Habitat units*	28.79
	Hedgerow units	2.73
	River units	0.00
Total net % change (including all on-site & off-site habitat creation + retained habitats)	*Habitat units*	16.69%
	Hedgerow units	14.36%
	River units	0.00%

A-1 Site Habitat Baseline

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Ref	Habitats and areas			Habitat distinctiveness		Habitat condition		Ecological connectivity			Strategic significance			Suggested action to address habitat losses	Ecological baseline	Retention category biodiversity value								Bespoke compensation agreed for unacceptable losses	Comments	
	Broad Habitat	Habitat type	Area (hectares)	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier		Total habitat units	Area retained	Area enhanced	Area succession	Baseline units retained	Baseline units enhanced	Baseline units succession	Area lost	Units lost		Assessor comments	Reviewer comments
1	Grassland	Grassland - Other neutral grassland	9.7904	Medium	4	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	Same broad habitat or a higher distinctiveness habitat required	90.07			0.3765	0.00	0.00	3.46	9.41	86.61		Semi-improved Long-sward Grassland (to be successioned), as shown on Plan 5903/BIA1.	
2	Grassland	Grassland - Other neutral grassland	0.5004	Medium	4	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	Same broad habitat or a higher distinctiveness habitat required	4.60				0.00	0.00	0.00	0.50	4.60		Semi-improved Short-sward Grassland, as shown on Plan 5903/BIA1.	
3	Cropland	Cropland - Cereal crops	4.63	Low	2	N/A - Agricultural	1	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	Same distinctiveness or better habitat required	10.65				0.00	0.00	0.00	4.63	10.65		Arable, as shown on Plan 5903/BIA1.	
4	Woodland and forest	Woodland and forest - Other woodland; broadleaved	2.4706	Medium	4	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	Same broad habitat or a higher distinctiveness habitat required	22.73		2.4706		0.00	22.73	0.00	0.00	0.00		Woodland, as shown on Plan 5903/BIA1.	
5	Heathland and shrub	Heathland and shrub - Mixed scrub	0.1576	Medium	4	Poor	1	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	Same broad habitat or a higher distinctiveness habitat required	0.72				0.00	0.00	0.00	0.16	0.72		Dense and Scattered Scrub, as shown on Plan 5903/BIA1.	
6	Urban	Urban - Developed land; sealed surface	0.0232	V.Low	0	N/A - Other	0	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	Compensation Not Required	0.00				0.00	0.00	0.00	0.02	0.00		Hardstanding, as shown on Plan 5903/BIA1.	
7	Grassland	Grassland - Other neutral grassland	4.7494	Medium	4	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	Same broad habitat or a higher distinctiveness habitat required	43.69	0.3765			3.46	0.00	0.00	4.37	40.23		Semi-improved Long-sward Grassland, as shown on Plan 5903/BIA1.	
8																										
		Total site area ha	22.32											Total Site baseline	172.47	0.38	2.47	0.38	3.46	22.73	3.46	19.10	142.82			

A-2 Site Habitat Creation

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Post development/ post intervention habitats																			
Proposed habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier	Time to target condition/years	Time to target multiplier	Difficulty of creation category	Difficulty of creation multiplier	Habitat units delivered	Assessor comments	Reviewer comments
						Ecological connectivity			Strategic significance			Temporal multiplier		Difficulty multipliers			Comments	
Grassland - Other neutral grassland	2.9492	Medium	4	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	10	0.700	Low	1	19.00	Wildflower Grassland, as shown on Plan 5903/BIA2	
Urban - Amenity grassland	0.1472	Low	2	Poor	1	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	1	0.965	Low	1	0.33	Amenity Grassland, as shown on Plan 5903/BIA2	
Grassland - Other neutral grassland	0.3163	Medium	4	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	10	0.700	Low	1	2.04	Swales, as shown on Plan 5903/BIA2	
Grassland - Other neutral grassland	1.219	Medium	4	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	10	0.700	Low	1	7.85	Species-rich Grassland, as shown on Plan 5903/BIA2	
Lakes - Ponds (Non- Priority Habitat)	0.5147	High	6	Moderate	2	Medium	Moderately connected habitat	1.1	Within area formally identified in local strategy	High strategic significance	1.15	3	0.899	Low	1	7.02	SuDS/Ponds, as shown on Plan 5903/BIA2	
Urban - Allotments	0.4724	Medium	4	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	1	0.965	Low	1	4.19	Allotments, as shown on Plan 5903/BIA2	
Grassland - Other neutral grassland	0.23805	Medium	4	Poor	1	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	1	0.965	Low	1	1.06	Play Areas - 25% grassland meadow, as shown on Plan 5903/BIA2	
Urban - Developed land; sealed surface	0.71415	V.Low	0	N/A - Other	0	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	0	1.000	Low	1	0.00	Play Areas - 75% surfaced area, as shown on Plan 5903/BIA2	
Heathland and shrub - Mixed scrub	0.177	Medium	4	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	3	0.899	Low	1	1.46	Woodland Buffer, as shown on Plan 5903/BIA2	
Urban - Suburban/ mosaic of developed/ natural surface	11.9659	Low	2	Poor	1	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	1	0.965	Low	1	26.56	Development Area as shown on Plan 5903/BIA2	
Heathland and shrub - Mixed scrub	0.3841	Medium	4	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	3	0.899	Low	1	3.18	Native Shrub Planting, as shown on Plan 5903/BIA2	
Totals	19.10														Total Units	72.69		

A-3 Site Habitat Enhancement

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Post development/ post intervention habitats																
Baseline habitats		Change in distinctiveness and condition			Area (hectares)	Distinctiveness	Condition	Ecological connectivity	Strategic significance	Temporal multiplier	Difficulty multipliers	Habitat units delivered	Comments	
Baseline ref	Baseline habitat	Proposed habitat (Pre-populated but can be overridden)	Distinctiveness change	Condition change				Ecological connectivity score	Strategic significance	Time to target condition/years	Difficulty of enhancement category		Assessor comments	Reviewer comments
4	Woodland and forest - Other woodland; broadleaved	Woodland and forest - Other woodland; broadleaved	Medium - Medium	Moderate - Fairly Good	2.4706	Medium	Fairly Good	Low	Within area formally identified in local strategy	10	Medium	25.40	Retained woodland to be enhanced	
				Total site area	2.47						Enhancement total	25.40		

A-4 Site Habitat Succession

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	Baseline habitats		Post development/ post intervention habitats										Comments	
			Change in distinctiveness and condition					Ecological connectivity	Strategic significance	Temporal multiplier	Difficulty			
Baseline ref	Baseline habitat	Proposed habitat	Distinctiveness change	Condition change	Area ha	Distinctiveness	Condition	Ecological connectivity score	Strategic significance	Time to target condition/years	Difficulty of creation category	Habitat units delivered	Assessor comments	Reviewer comments
1	Grassland - Other neutral grassland	Woodland and forest - Other woodland; broadleaved	Medium - Medium	Moderate - Moderate	0.3765	Medium	Moderate	Low	Within area formally identified in local strategy	30	Medium	99.71	New area of woodland to be created through Accelerated Succession, shown as Woodland Buffer on Plan 5903/BIA2	
				Total site area	0.38							99.71		

B-1 Site Hedge Baseline

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	UK Habitats - existing habitats			Habitat distinctiveness		Habitat condition		Ecological connectivity			Strategic significance				Ecological baseline	Retention category biodiversity value						Comments	
Baseline ref	Hedge number	Hedgerow type	length KM	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier	Suggested action to address habitat losses	Total hedgerow units	Length retained	Length enhanced	Units retained	Units enhanced	Length lost	Units lost	Assessor comments	Reviewer comments
1		Native Hedgerow	0.469	Low	2	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	Same distinctiveness band or better	2.1574		0.354	0	1.6284	0.115	0.529	Hedgerows H1, H7, H10, H11 and H12 shown on Plan 5903/BIA1	
2		Native Species Rich Hedgerow	1.346	Medium	4	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	Like for like or better	12.3832	1.242		11.4264	0	0.104	0.9568	Hedgerows H2, H3, H4, H5, H6, H8 and H9 shown on Plan 5903/BIA1	
3		Line of Trees (Ecologically Valuable)	0.489	Medium	4	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	Like for like or better	4.4988	0.465		4.278	0	0.024	0.2208	Tree lines as shown on Plan 5903/BIA1	
4																							
5																							
		Total Site length/KM	2.30											Total Site baseline	19.04	1.71	0.35	15.70	1.63	0.24	1.71		

B-2 Site Hedge Creation

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		Proposed habitats		Habitat distinctiveness		Habitat condition		Multipliers: Ecological connectivity			Multipliers: Spatial quality – Strategic significance			Temporal multiplier		Difficulty of creation multiplier	Hedge units delivered	Comments	
Baseline ref	New hedge number	Habitat type	Length km	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier	Time to target condition/years	Time to target multiplier			Assessor comments	Reviewer comments
1		Native Species Rich Hedgerow	0.684	Medium	4	Moderate	2	Low	Unconnected habitat	1	Within area formally identified in local strategy	High strategic significance	1.15	5	0.837	0.67	3.53	New native hedgerows as shown on Plan 5903/BIA2.	
2																			
3																			
4																			
5																			
6																			
		Creation Length/KM	0.68														3.53		

B-3 Site Hedge Enhancement

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	Baseline Habitats		Post development/ post intervention habitats: Proposed	Change in distinctiveness and condition		Length KM	Distinctiveness	Condition	Ecological connectivity	Strategic significance	Temporal multiplier	Difficulty Multipliers	Hedge units delivered	Comments	
Baseline ref	Baseline habitat			Distinctiveness movement	Condition movement					Strategic significance	Time to target condition/years	Difficulty of enhancement Category		Assessor comments	Reviewer comments
1	Native Hedgerow		Native Species Rich Hedgerow	Low - Medium	Lower Distinctiveness Habitat - Moderate	0.354	Medium	Moderate	Low	Within area formally identified in local strategy	5	Medium	2.54	Retained hedgerows as shown on Plan 5903/BIA2 previously identified as 'Native Hedgerow' on Plan 5903/BIA1.	
					Total site length	0.35							2.54		

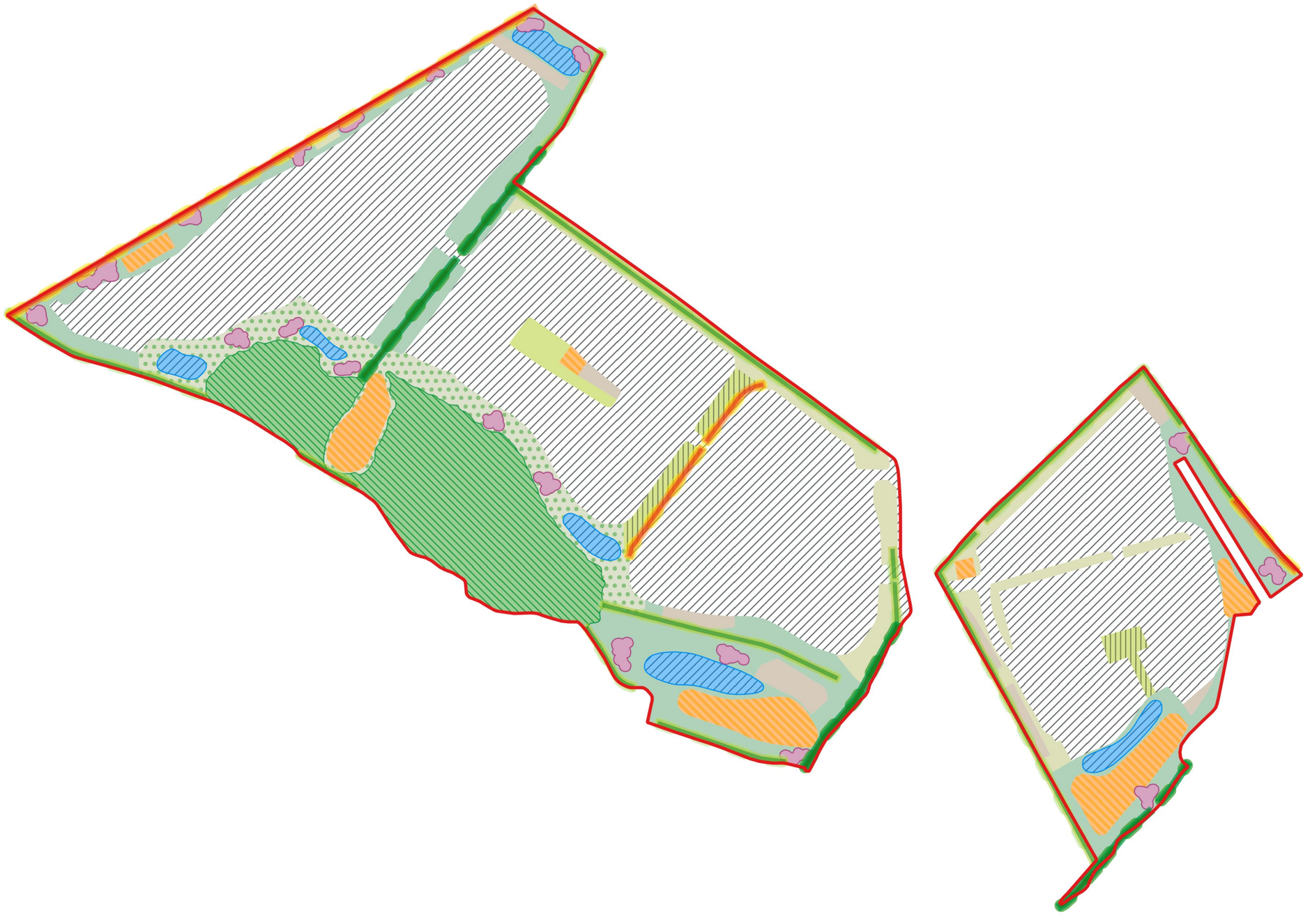
Key:

- Site Boundary
- Semi-improved Short-sward Grassland
- Semi-improved Long-sward Grassland
- Arable
- Dense Scrub
- Scattered Scrub
- Woodland
- Native Hedgerow
- Native Species Rich Hedgerow
- Tree Line
- Dry Ditch
- Hardstanding

aspect ecology

Aspect Ecology Limited - West Court - Hardwick Business Park
Noral Way - Banbury - Oxfordshire - OX16 2AF
01295 279721 - info@aspect-ecology.com - www.aspect-ecology.com

North West Bicester	PROJECT
Existing Measurements	TITLE
5903/BIA1	DRAWING NO.
D	REV
April 2021	DATE



Key:

- Site Boundary
- Amenity Grassland
- Species Rich Grassland
- Wildflower Grassland
- Woodland
- Woodland Buffer
- Native Shrub Planting
- Swale
- SuDS
- Allotment
- Play Area
- Development
- Retained Hedgerow
- New Hedgerow
- Retained Tree Line

aspect ecology

Aspect Ecology Limited - West Court - Hardwick Business Park
Noral Way - Banbury - Oxfordshire - OX16 2AF
01295 279721 - info@aspect-ecology.com - www.aspect-ecology.com

North West Bicester	PROJECT
Proposal Measurements	TITLE
5903/BIA2	DRAWING NO.
D	REV
April 2021	DATE