



Created Life Three (Bicester) Ltd

Land at Skimmingdish Lane, Bicester

Biodiversity Assessment – revision November 2021

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RSK GENERAL NOTES

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK Biocensus Ltd.

EXECUTIVE SUMMARY

1. This assessment is a desk-based exercise using the results of surveys undertaken by RSK Biocensus on 23 March 2021 to provide a baseline measure in biodiversity value at Land at Skimmingdish Lane, Bicester using the Defra biodiversity metric 2.0. Proposed habitat changes arising from future ecological enhancements based on a proposed site layout plan (post-construction) provided by the client are evaluated against the baseline (pre-construction) ecology to demonstrate net change in biodiversity units.
2. This report calculates 'biodiversity units' using the Defra biodiversity metric 2.0 and following the methods set out in Defra's biodiversity metric 2.0 user guide. The calculations are based on the area (or length), distinctiveness, condition, strategic significance and connectivity of habitats found on the site.
3. The full biodiversity assessment calculation can be found in the accompanying Excel document 2480586 – Biodiversity Metric; however, the main results tables are presented here in Appendix A and B.
4. There are no changes or deviations from default values.
5. Assumptions have been made regarding the condition of enhanced and post-development scenarios. The condition assessments for these habitats are listed in Appendix D.
6. The site was found to comprise a total of six habitat types with a baseline of 6.84 habitat area units (i.e. 'biodiversity units'), 0 terrestrial linear biodiversity units and 0 aquatic linear biodiversity units.
7. Post-development plans include one retained habitat, five enhanced habitats and six new habitats with a total of 8.3 biodiversity area units, 0 terrestrial linear biodiversity units and 0 aquatic linear biodiversity units.
8. The biodiversity assessment thus concludes that the current proposed development will result in a change of + 1.23 biodiversity area units (i.e. a net gain of 18%), 0 terrestrial linear biodiversity units and 0 aquatic linear biodiversity units.
9. The attainment of net gain at this site is dependant on the enhancement of existing habitats, principally the scrubland near the south eastern margin.

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1 INTRODUCTION

1.1 Purpose of this Report

In March 2021, RSK Biocensus were requested by Created Life Three to carry out a biodiversity assessment of land at Skimmingdish Lane associated with a proposed commercial development. The aim was for an ecologist with botanical expertise to carry out a site visit to map the habitat types present to establish the biodiversity baseline.

Each habitat type was mapped using the standard habitat mapping convention using UKHab methodology (Butcher et al., 2020) for the purposes of using the Defra metric (Crosher, 2019).

Using the findings of the baseline surveys, pre-construction ecology was measured against proposed habitat changes arising from future ecological enhancements based on a proposed site layout plan (post-construction) provided by the client (Drawing Number: 15987-109A, The Harris Partnership, 2021).

This report presents the results of this desk-based study to assess net change in biodiversity 'units' in connection with the removal of habitats for the proposed development at the site.

1.2 Ecological Context

The site is 1.17 ha and *Figure 1* shows the site location.

The site is located on the north-eastern edge of the town of Bicester and is accessed via a roundabout from the ring road. The site is a parcel of land, formerly allotments, allocated and partly developed for commercial use. Adjacent land has seen substantial development over the past decade, with a large production and distribution hub to the north and a busy industrial estate to the southwest. The site is in the catchment area of the River Cherwell, and most of it is in flood zone 3b, with the exception of an area to the northwest where the proposed development has been situated.

1.3 Policy context

The primary aim of Biodiversity Net Gain is to secure a measurable improvement in habitat for biodiversity, to minimise biodiversity losses and to help to restore ecological networks whilst streamlining development processes.

The passing of the Environment Act in November 2021 brings a mandatory condition for most developments to achieve a 10% net gain.

2 METHODS

2.1 Introduction

The biodiversity metric 2.0 is designed to quantify biodiversity to inform and improve planning, design, land management and decision-making (Crosher et al, 2019). Metric 3.0 was issued in May 2021, but as this is a revision of an earlier biodiversity assessment using the 2.0 metric, a change to the metric was not felt to be appropriate.

This study has been carried out as a desk-based exercise, using the results of field surveys carried out at the site by RSK and a Proposed Site Plan (November 2021) provided by the client. The primary documents consulted as part of this study include:

- 2480586 – Preliminary Ecological Appraisal Report (RSK Biocensus, 2021)
- 15987-109A Proposed Master Plan (provided by the client)

A map of the pre-construction habitats from the ecological appraisal is presented in *Figure 2*.

2.2 Biodiversity Assessment Methods

To calculate biodiversity units for the site and assess any changes arising from the proposed development this study uses methods set out the latest Biodiversity Metric 2.0 user guide (Crosher et al., 2019).

The biodiversity metric uses habitat area as its core measurement, except for linear features where it uses habitat length¹. Additionally, linear habitats are split into two types, terrestrial (e.g. hedgerows and lines of trees), and aquatic (e.g. rivers and streams). Therefore, a site can have three biodiversity unit values, one for habitat areas, one for terrestrial linear features, and one for aquatic linear features. They are assessed using the same metric but cannot be summed together.

Habitat area is multiplied by several factors that indicate its quality: distinctiveness, condition, strategic location, and connectivity, and this gives its biodiversity unit value. This can be used for existing and future created habitats². This is shown in Image 1.

2.2.1 Habitat Distinctiveness

Habitats are classified using the UK habitat classification system (Butcher et al., 2020).

The metric pre-assigns each habitat type to a distinctiveness band according to its distinguishing features, i.e. species richness, rarity (at local, regional, national and international scales), and the degree to which it supports species rarely found in other habitats. On rare occasions, the habitat distinctiveness of a habitat can be altered up or down from the preassigned value. Any alterations must then be fully explained using

¹ Linear features are assessed by length rather than area to avoid underestimating their value and therefore failing to ensure adequate compensation for any losses.

² Where future habitats are to be enhanced or newly created, the risk of failure is accounted for by applying multipliers for risk factors (difficulty, time to target condition, and off-site risk).

evidence relevant to the site, e.g. an increase in distinctiveness because of rare flora or fauna or a decrease in distinctiveness because of significant damage to the habitat.

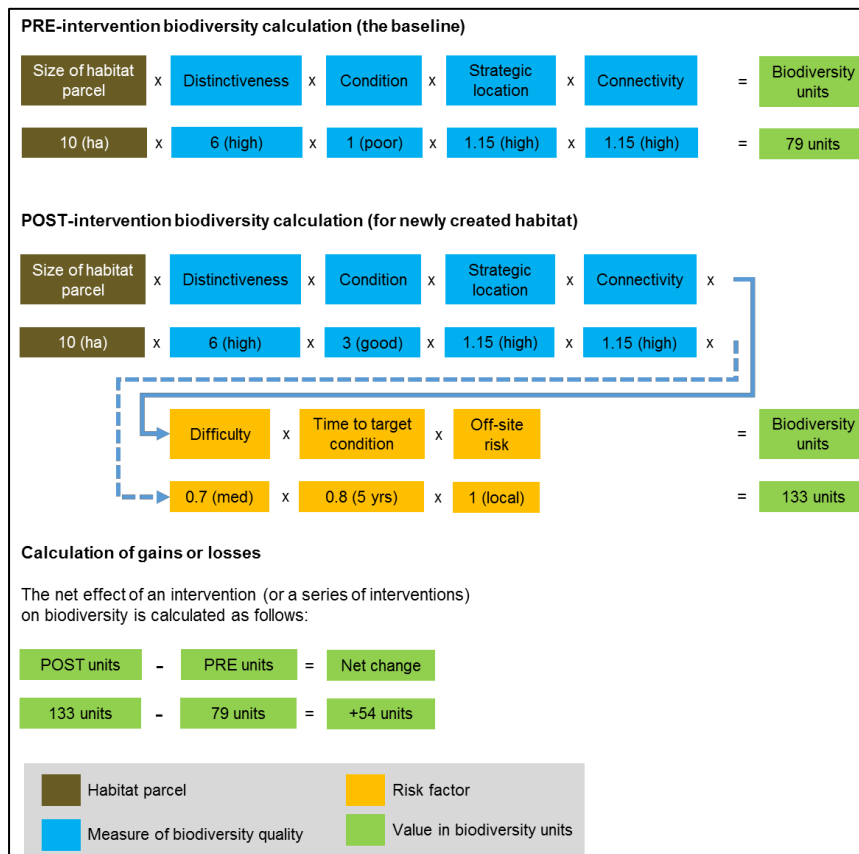


Image 1. Biodiversity Metric Calculation (from Crosher et al., 2019)

2.2.2 Habitat Condition

Habitat condition measures the varying quality of similar habitats against what is perceived to be their optimal state. The biodiversity metric 2.0 technical supplement (Crosher et al., 2019a) contains condition sheets for all habitats to which the metric can apply. The condition sheets contain a habitat description, contextual information to aid the assessment, and the assessment criteria. The criteria describe what components need to be present for a habitat to be in good, moderate or poor condition.

2.2.3 Strategic Location

Strategic location - sometimes called 'strategic significance' – works at a landscape scale, allowing additional value to be added to habitats in 'priority' or 'biodiversity target areas'. They include statutory and non-statutory sites and other areas with biodiversity value or potential, and they are mainly identified from local plans and objectives. If a habitat is within such a target area, a multiplier is applied to increase its value.

2.2.4 Connectivity

Connectivity aims to consider a habitat in relation to surrounding similar or associated habitats. The connectivity of a habitat is calculated by inputting GIS layers of habitats

and the site boundary into the connectivity tool that then produces an output with the connectivity value. Full details of how the connectivity tool works can be found within the published guidance (Crosher et al., 2019b). Currently high and very high distinctiveness habitats should be processed through the biodiversity metric 2.0 connectivity tool, all other habitats are given a default low connectivity multiplier.

2.2.5 Difficulty of Creation and Restoration

The risks associated with creating new or enhancing existing habitats, are known as difficulty factors; for example, where habitats fail to establish owing to natural changes in local conditions, incorrect management or for unknown reasons. The biodiversity metric 2.0 contains default values for each habitat based on the average difficulty of creating or enhancing a habitat. Occasionally, under exceptional circumstances, these can be modified, but any deviation from the default value must be fully justified.

2.2.6 Time to Target Condition

There is often a lag between a habitat being removed and the new compensation habitats achieving their target condition. This gives reduced biodiversity value for a time. The biodiversity metric 2.0 preassigns the time to target condition based on good practice and typical conditions, and assigns a multiplier based on the number of years required to achieve it.

Using bespoke techniques under unique conditions, or creating compensation habitats prior to impacts taking place, the time to target condition can be adjusted. Any changes must again be fully justified.

2.2.7 Off-site Risk

Sometimes it is not possible to compensate adequately for loss of biodiversity within the site boundary, so off-site compensation is required. If the off-site compensation is a significant distance from the development site, then there will be a local loss of biodiversity and a multiplier is applied to any off-site compensation.

3 BIODIVERSITY ASSESSMENT

3.1 Biodiversity Baseline

The habitat survey map (*Figure 2*) has been used to identify six habitat areas and 0 linear habitats with a total of 6.84 area units, 0 terrestrial linear units and 0 aquatic linear units.

The results of the calculations are presented in Appendix A. It should be noted that these represent screenshots from the calculator; the full biodiversity assessment calculation can be found in the Excel document '2480586 - Biodiversity Metric 2.0 2nd iteration Nov2021'.

The condition assessments for each of the linear and area habitats are presented in Appendix C. There have been no deviations from the default methods for baseline habitats.

3.2 Post-development Habitat Creation and Enhancement

A combination of the Proposed Master Plan (November 2021), the Proposed Site Plan (June 2021) and the Drainage Layout Plan (May 2021) have been consulted during the calculation of baseline and post-development biodiversity. A part of this revision, the management of onsite habitats to improve their condition has been proposed. Accordingly our current iteration of the metric proposes a low-maintenance approach focusing on the improvement of existing habitats. This will result in one retained habitat, five enhanced habitats and six newly-created habitats.

These have also been put into the Biodiversity Metric 2.0 and would comprise a total of 8.07 biodiversity area units, 0 terrestrial linear biodiversity units and 0 aquatic linear biodiversity units.

The retained habitat: broadleaved woodland, is already in a moderate condition. This requires no further action except for the eradication of the invasive non-native species Variegated Yellow Archangel (*Lamium galeobdolon* ssp. *argenteum*).

The five enhanced habitats comprise three patches of mixed scrub, an area of broadleaved woodland and an area of neutral grassland.

Areas of scrub are in poor to moderate condition. This can be enhanced to good condition with the eradication of non-native Variegated Yellow Archangel, the creation of glades and in the case of species-poor Bramble and Blackthorn scrub in poor condition, the planting of a wider range of species.

The grassland is in poor condition which can be enhanced to fairly poor condition with a low-intensity mowing regime timed to reduce the vigour of the grasses.

The area of woodland is a monospecific stand of suckering Lombardy Poplar in poor condition which will be replanted with native tree and scrub species.

Of the six newly-created habitats, one represents the developed land of the drive-through franchise, with associated hardstanding for parking and roadways. Four are areas of grassland or scrub within 10m of the development area that have been assumed temporarily lost during development and then will be re-created with at least a

moderate condition. The final habitat is a detention basin to the south of the development, which will alleviate flood risk and provide important wetland habitat on site.

There are no changes to default values for post development habitats. Details of the assumptions made to achieve the proposed conditions are found in Appendix D.

3.3 Change in Biodiversity Value

Under the current proposals set out in the Proposed Site Plan (Mar 2019) there will be a positive gain of + 0.46 units, 0 terrestrial linear biodiversity units and 0 aquatic linear biodiversity units. This is shown in Table 1.

Table 1. Change in Biodiversity Units Calculation

Post-development Biodiversity Area Units		Baseline Biodiversity Area Units		Change in Biodiversity Area Units
8.07	-	6.84	=	+ 1.23 (+18%)
Post-development Biodiversity Terrestrial Linear Units		Baseline Biodiversity Terrestrial Linear Units		Change in Biodiversity Terrestrial Linear Units
0	-	0	=	+ 0
Post-development Biodiversity Aquatic Linear Units		Baseline Biodiversity Aquatic Linear Units		Change in Biodiversity Aquatic Linear Units
0	-	0	=	+ 0

3.4 Suggestions to Improve Biodiversity Gain

The change in biodiversity value for Land at Skimmingdish Lane as set out in Table 1, above, indicates that a comfortable level of Biodiversity Net Gain (BNG) is achievable at this site with the institution of a low-maintenance management regime. The same habitats, if unenhanced, return a net loss so some degree of intervention is a pre-requisite for achieving net gain at this site.

The existing plan has attempted to minimise the amount of habitat lost to development with the result that some 0.73 ha are available for enhancement. This allows a degree of leeway in terms of the management approaches adopted. For example a strategy that moved all five enhanced habitats two stops up the condition assessment table (i.e. from poor to moderate, or moderate to good), would still achieve 19.98% net gain.

Key to enhancement efforts is the large area of mixed scrub in moderate condition to the southeast of the site. Its enhancement from moderate to good condition is responsible for a gain of 1.43 biodiversity units: 20.84% of the net gain achieved at this site. The scrub condition was assessed as moderate because of the presence of Variegated Yellow Archangel and the unremitting density of the vegetation. In order to enhance it to good condition the invasive species should be controlled, and a few glades should be cut into the scrub where it is at its most dense. As the area is used by dog walkers, the creation of a few new paths through this area would both let in light and boost the area's amenity value (it is also to be expected that a degree of footfall would lower the need for ongoing maintenance by keeping paths open). Where thick

monospecific stands have formed, the key will be to broaden the species composition and age range by a small amount of sympathetic planting of native shrubs.

Enhancement of the existing grasslands depends on lessening the dominance of grasses (particularly False Oat-grass (*Arrhenatherum elatius*)) in the sward and lowering the nutrient status of the soil. Given the nature of the site and its amenity value to dog walkers, it is unlikely that the habitat could be enhanced to moderate condition, and a modest enhancement from poor to fairly poor condition is proposed. This would be achieved by yearly mowing to reduce the vigour of grass species.

Areas marginal to the pond (and swale) could be planted with a seed mix such as the Emorsgate Seeds EP1 pond edge mixture, with perhaps an outer band of EM8 wetland meadow mixture. Other areas requiring replanting after the construction phase could be seeded with an all-purpose meadow seed mix or planted with species of native trees or shrubs. Scrub and tree planting involves greater initial intervention, but less long-term maintenance, while areas newly seeded will typically take around 10 years of annual mowing to establish.

All new habitats discussed here, whether enhanced or newly-created, will take from 3-10 years to establish, and should be managed appropriately. These timescales should be factored into any habitat management plans.

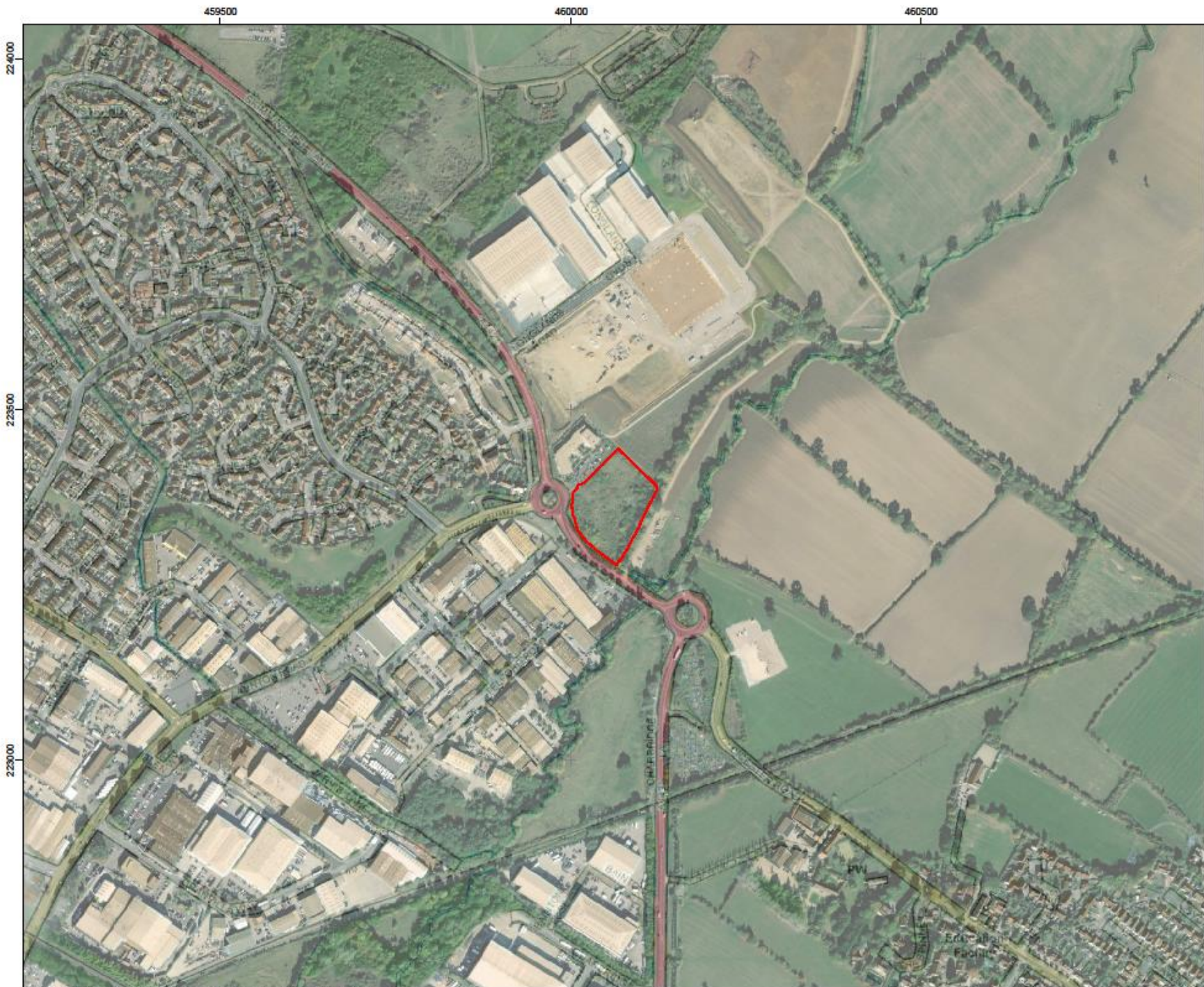
A range of small-scale interventions such as the creation of log piles and hibernacula, and the erection of bird and bat boxes, would also be beneficial to the biodiversity at this site. While these enhancements are not reflected in calculations on the Defra calculator, they have been included by the client in plans for habitat management.

4 REFERENCES

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- Cherwell District Council (2020), *Community Nature Plan 2020-2022*, at www.cherwell.gov.uk/info/118/communities/532/community-nature-plan
- Crosher, I., Gold, S., Heaven, M., Heydon, M., Moore, L., Panks, S., Scott, S., Stone, D. & White, N. (2019), *The Biodiversity Metric 2.0: auditing and accounting for biodiversity value. User guide (Beta Version, July 2019)*. Natural England.
- Crosher, I., Gold, S., Heaven, M., Heydon, M., Moore, L., Panks, S., Scott, S., Stone, D. & White, N. (2019a), *The Biodiversity Metric 2.0: Auditing and accounting for biodiversity value: technical supplement (Beta version, July 2019)*. Natural England.
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- Ingram, J. (2021) *15987-109A Proposed Master Plan.pdf*. The Harris Partnership
- Paul Owen Associates (2021) *220029_100_P5.pdf Drainage Layout*. Paul Owen Associates
- RSK Biocensus (2021) *Biodiversity Assessment Report*. RSK Tonbridge
- Vector (2021) *15987-VL-L01B Landscape Plan.pdf*. Vector Design Concepts

5 FIGURES AND PLATES

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Figure 2. Existing Habitats.	11



Legend:

Site boundary

Coordinate System: British National Grid
 Projection: Transverse Mercator
 Datum: OSGB 1936
 Units: Meter

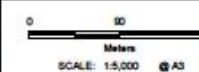


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Skimmingdish Lane



TITLE: Figure 1:
 Site Location Plan



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223400

223300

**Legend:**

Site boundary

UKHAB Classification

Arrhenatherum neutral grassland

Blackthorn scrub

Bramble scrub

Mixed scrub

Line of trees

Other broadleaved woodland types

Target note

Coordinate System: British National Grid
 Projection: Transverse Mercator
 Datum: OSGB 1936
 Units: Meter



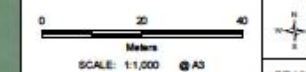
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Skimmingdish Lane

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 EXPERTS IN ECOLOGY

TITLE: Figure 2:

UKHAB Survey



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APPENDIX A – DEFRA METRIC TABLES - BASELINE

This appendix presents the summary baseline Defra metric tables taken from the Biodiversity Metric excel document.

A-1 Site Habitat Baseline

Condense / Show Columns

Condense / Show Rows

Main Menu

Instructions

	Habitats and areas			Habitat distinctiveness	Habitat condition	Ecological connectivity	Strategic significance	Suggested action to address habitat losses	Ecological baseline
Ref	Broad Habitat	Habitat type	Area (hectares)	Distinctiveness	Condition	Ecological connectivity	Strategic significance		Total habitat units
1	Grassland	Grassland - Other neutral grassland	0.4	Medium	Poor	Low	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat	1.60
2	Heathland and shrub	Heathland and shrub - Blackthorn scrub	0.02	Medium	Poor	Low	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat	0.08
3	Heathland and shrub	Heathland and shrub - Bramble scrub	0.18	Medium	Poor	Low	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat	0.72
4	Heathland and shrub	Heathland and shrub - Mixed scrub	0.48	Medium	Moderate	Low	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat	3.84
5	Woodland and forest	Woodland and forest - Other woodland; broadleaved	0.06	Medium	Moderate	Low	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat	0.48
6	Woodland and forest	Woodland and forest - Other woodland; broadleaved	0.03	Medium	Poor	Low	Area/compensation not in local strategy/ no local strategy	Same broad habitat or a higher distinctiveness habitat	0.12
7									
8									
9									
10									
11									
Total site area ha			1.17					Total Site baseline	6.84

Retention category biodiversity value						
Area retained	Area enhanced	Area succession	Baseline units retained	Baseline units enhanced	Baseline units succession	Area lost
	0.24		0.00	0.96	0.00	0.16
	0.01		0.00	0.04	0.00	0.01
	0.05		0.00	0.20	0.00	0.13
	0.4		0.00	3.20	0.00	0.08
0.06			0.48	0.00	0.00	0.00
	0.03		0.00	0.12	0.00	0.00
0.06	0.73	0.00	0.48	4.52	0.00	0.38

APPENDIX B – DEFRA METRIC TABLES – POST DEVELOPMENT

This appendix presents the summary habitat creation & enhancements Defra metric tables taken from the Biodiversity Metric excel document.

A-2 Site Habitat Creation

Condense / Show Columns

Condense / Show Rows

Main Menu

Instructions

Post development/ post intervention habitats									
Proposed habitat	Area (hectares)	Distinctiveness	Condition	Ecological	Strategic significance	Temporal	Difficulty	Habitat units delivered	
				Ecological connectivity	Strategic significance	Time to target condition/years	Difficulty of creation category		Assessor comments
Urban - Developed land; sealed surface	0.21	V.Low	N/A - Other	Low	Area/compensation not in local strategy/ no local strategy	0	Low	0.00	
Grassland - Modified grassland	0.05	Low	Moderate	Low	Area/compensation not in local strategy/ no local strategy	10	Low	0.14	amenity grassland around development
Grassland - Other neutral grassland	0.01	Medium	Moderate	Low	Area/compensation not in local strategy/ no local strategy	10	Low	0.06	Area over tanks
Grassland - Other neutral grassland	0.07	Medium	Moderate	Low	Area/compensation not in local strategy/ no local strategy	10	Low	0.39	buffer area to tanks and pond
Grassland - Other neutral grassland	0.02	Medium	Moderate	Low	Area/compensation not in local strategy/ no local strategy	10	Low	0.11	pond margin
Lakes - Ponds (Priority Habitat)	0.02	High	Moderate	Medium	Area/compensation not in local strategy/ no local strategy	5	Medium	0.15	
Totals	0.38							0.85	

A-3 Site Habitat Enhancement												
<div>Condense / Show Columns</div> <div>Condense / Show Rows</div>												
<div>Main Menu</div> <div>Instructions</div>												
	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
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	
1	Grassland - Other neutral grassland	Grassland - Other neutral grassland	Medium - Medium	Poor - Fairly Poor	0.24	Medium	Fairly Poor	Low	Area/compensation not in local strategy/ no local strategy	5	Low	1.36
2	Heathland and shrub - Blackthorn scrub	Heathland and shrub - Mixed scrub	Medium - Medium	Poor - Good	0.01	Medium	Good	Low	Area/compensation not in local strategy/ no local strategy	10	Low	0.10
3	Heathland and shrub - Bramble scrub	Heathland and shrub - Mixed scrub	Medium - Medium	Poor - Good	0.05	Medium	Good	Low	Area/compensation not in local strategy/ no local strategy	10	Low	0.48
4	Heathland and shrub - Mixed scrub	Heathland and shrub - Mixed scrub	Medium - Medium	Moderate - Good	0.4	Medium	Good	Low	Area/compensation not in local strategy/ no local strategy	3	Low	4.64
6	Woodland and forest - Other woodland; broadleaved	Woodland and forest - Other woodland; broadleaved	Medium - Medium	Poor - Moderate	0.03	Medium	Moderate	Low	Area/compensation not in local strategy/ no local strategy	15	Medium	0.17
				Total site area	0.73						Enhancement total	6.74

Headline Results from the Biodiversity Metric:

Headline Results			Return to results menu
On-site baseline	Habitat units	6.84	
	Hedgerow units	0.00	
	River units	0.00	
On-site post-intervention (Including habitat retention, creation, enhancement & succession)	Habitat units	8.07	
	Hedgerow units	0.00	
	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 & succession)	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	1.23	
	Hedgerow units	0.00	
	River units	0.00	
Total net % change (including all on-site & off-site habitat creation + retained habitats)	Habitat units	18.00%	
	Hedgerow units	0.00%	
	River units	0.00%	

APPENDIX C – BASELINE DETAILED CONDITION ASSESSMENTS

This appendix presents the condition assessments of the baseline habitats against the condition sheets in the biodiversity metric 2.0 technical supplement published by Crosher et al., (2019a). Any deviations from the published guidance are explained and justified.

Grassland

Phase 1 Habitat	Semi-improved Neutral Grassland		
UKHAB classification	Grassland – Other Neutral Grassland		
Distinctiveness	Medium (4)	Area / Length	0.29 ha
Habitat Description			
<ul style="list-style-type: none"> Includes both agricultural, recreational, amenity, road verges and semi-natural grassland types including Priority Habitat Grasslands on all soil types. Will be dominated by grassland species with very little (if any) dwarf shrub, wetland or wooded species within the sward. Will exist above and below the level of enclosure at all altitudes. 			
Condition Assessment Criteria			
<ol style="list-style-type: none"> The area is clearly and easily recognisable as a good example of this type of habitat and there is little difference between what is described in the relevant habitat classifications and what is visible on site. The appearance and composition of the vegetation on site should very closely match the characteristics for the specific Priority Habitat [i.e as described by either the Phase 1 Habitat Classification or the UK Habitat Classification], with species typical of the habitat representing a significant majority of the vegetation. Wildflowers, sedges and indicator species for the specific Priority grassland habitat are very clearly and easily visible throughout the sward and occur at high densities in high frequency. See relevant Habitat Classification for details of indicator species for specific habitat. Undesirable species and physical damage is below 5% cover. Cover of bare ground greater than 10% (including localised areas, for example, rabbit warrens). Cover of bracken less than 20% and cover of scrub and bramble less than 5%. 			

Condition	
Good	<ul style="list-style-type: none"> Species-rich Grassland of all Priority Habitat Types. Of high to moderate quality. Wildflower and sedges above 30% excluding white clover <i>Trifolium repens</i>, creeping buttercup <i>Ranunculus repens</i> and injurious weeds. Meets all the condition criteria with only minor variation. None of the indicators of poor condition are present (4, 5 & 6).
Moderate	<ul style="list-style-type: none"> Semi-improved grassland occurs on a wide range of soils and may be derived from higher quality Priority Habitat grassland habitats in poor condition. Often as they deteriorate following nutrient inputs. Typical grasses include: cock's-foot, common bent, creeping bent, crested dog's-tail, false oat-grass, meadow fescue, meadow foxtail, red fescue, sweet vernal grass, Timothy, tufted hair-grass and Yorkshire-fog. Total cover of wildflowers and sedges less than 30%, excluding white clover, creeping buttercup and injurious weeds. Rye-grass cover is less than 25% including amenity grasslands. OR clearly fails at least 1 of the condition criteria. OR The grassland type has some differences between what is described in the relevant habitat classifications and what is visible on site. It is a Lower Quality Priority Habitat, but clearly recognisable as such. Potentially restorable to grassland Priority Habitat with improved management. Cover of undesirable species at 5- 15%.
Poor	<ul style="list-style-type: none"> Agricultural grasslands is characterised by vegetation dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of rye-grass <i>Lolium</i> spp. (above 25% cover) and white clover <i>Trifolium repens</i>. These grasslands are typically either managed as pasture or mown regularly for silage production or in non-agricultural contexts for recreation and amenity purposes; they are often periodically re-sown and are maintained by fertiliser treatment and weed control. They may also be temporary and sown as part of the rotation of arable crops but they are only included in this broad habitat type if they are more than one year old. Amenity and Road verge grasslands with similar species to description for agriculture grasslands. OR Most of the condition criteria are being failed. Cover of undesirable species above 15%, usually resulting in a dense scrub or tree cover, or high cover of exotic species.
Condition Result	
Poor (1)	
Justification	
<p>The grassland is dominated by False Oat-grass (<i>Arrhenatherum elatius</i>) to the exclusion of other grasses and broadleaved herbs. Nettlebeds and stands of other tall ruderals are frequent, as is the encroachment of scrub. Non-native species such as Lupin (<i>Lupinus</i> sp.) and Michelmas-daisy (<i>Symphyotrichum</i> sp.) are common in places, but there is sufficient remnant diversity in places to suggest a favourable outcome with sympathetic management.</p>	

Bramble Scrub

Phase 1 Habitat	Dense / continuous scrub		
UKHAB classification	Heathland and shrub – Bramble scrub		
Distinctiveness	Medium (4)	Area / Length	0.19 ha
Habitat Description			
<p>This covers Biodiversity Metric scrub categories including;</p> <ul style="list-style-type: none"> • Bracken, Blackthorn, Bramble, Gorse, Hawthorn, Hazel, Mixed scrub, Sea blackthorn and Rhododendron, Rhododendron ponticum. <p>Scrub of high (distinctiveness) environmental value such as:</p> <ul style="list-style-type: none"> • Common juniper or box scrub. • Scrub on calcareous soils with three or more of wayfaring-tree. • Wild privet, dogwood, buckthorn, hawthorn and spindle. • Native sea buckthorn scrub (on the east coast). • Hazel. • Scrub on peat soils with two or more of alder buckthorn, eared willow, goat willow, grey willow, bay willow, purple willow and osier. • It excludes montane scrub (above 600 m altitude) which is covered under Heathland. • South facing bracken stands with violets, when associated with UK priority butterfly species; high brown fritillary, pearl-bordered fritillary and small pearl-bordered fritillary. <p>Scrub of lower (distinctiveness) environmental value such as:</p> <ul style="list-style-type: none"> • The majority of bracken stands. • Bramble. • Blackthorn, Hawthorn. • Gorse (unless as a low growing component of heathland habitat). • Mixed scrub. 			
Condition Assessment Criteria			
<ol style="list-style-type: none"> 1. There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be 100% cover). 2. There is a good age range – a mixture of seedlings, saplings, young shrubs and mature shrubs. 3. Pernicious weeds and invasive species make up less than 5% of the ground cover. 4. The scrub has a well-developed edge with un-grazed tall herbs. 5. There are many clearings and glades within the scrub. 			

Condition	
Good	<ul style="list-style-type: none"> Meets all of the 5 criteria with only minor variation. Scrub type of high biodiversity value in good condition. None of the indicators of poor condition are present
Moderate	<ul style="list-style-type: none"> The single woody species cover is greater than 75%. The age range is missing some size classes. Scrub type of high biodiversity value in poor condition. The scrub type has minor differences between what is described in the relevant habitat classifications and what is visible on site. Cover of undesirable and invasive species at 5-20%.
Poor	<ul style="list-style-type: none"> The single woody species cover is greater than 75%. The age range is missing some size classes. Scrub type of high biodiversity value in poor condition. The scrub type has minor differences between what is described in the relevant habitat classifications and what is visible on site. Cover of undesirable and invasive species at 5-20%. Single-age scrub present. Potentially restorable to improved scrub habitat with improved management. All of the condition criteria are being failed. The scrub type has major differences between what is described in the relevant habitat classifications and what is visible on site. Cover of undesirable and invasive species above 20% [see below]. All Rhododendron stands will be in this condition.
Condition Result	
Poor (1)	
Justification	
Monocultures of Bramble which are lacking in species diversity and have therefore been designated as poor condition.	

Blackthorn Scrub

Phase 1 Habitat	Dense / continuous scrub		
UKHAB classification	Heathland and shrub – Blackthorn scrub		
Distinctiveness	Medium (4)	Area / Length	0.02 ha
Habitat Description			
<p>This covers Biodiversity Metric scrub categories including;</p> <ul style="list-style-type: none"> Bracken, Blackthorn, Bramble, Gorse, Hawthorn, Hazel, Mixed scrub, Sea blackthorn and Rhododendron, Rhododendron ponticum. <p>Scrub of high (distinctiveness) environmental value such as:</p> <ul style="list-style-type: none"> Common juniper or box scrub. Scrub on calcareous soils with three or more of wayfaring-tree. Wild privet, dogwood, buckthorn, hawthorn and spindle. Native sea buckthorn scrub (on the east coast). Hazel. Scrub on peat soils with two or more of alder buckthorn, eared willow, goat willow, grey willow, bay willow, purple willow and osier. It excludes montane scrub (above 600 m altitude) which is covered under Heathland. South facing bracken stands with violets, when associated with UK priority butterfly species; high brown fritillary, pearl-bordered fritillary and small pearl-bordered fritillary. <p>Scrub of lower (distinctiveness) environmental value such as:</p> <ul style="list-style-type: none"> The majority of bracken stands. Bramble. Blackthorn, Hawthorn. Gorse (unless as a low growing component of heathland habitat). Mixed scrub. 			

Condition Assessment Criteria	
1. There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be 100% cover). 2. There is a good age range – a mixture of seedlings, saplings, young shrubs and mature shrubs. 3. Pernicious weeds and invasive species make up less than 5% of the ground cover. 4. The scrub has a well-developed edge with un-grazed tall herbs. 5. There are many clearings and glades within the scrub.	
Condition	
Good	<ul style="list-style-type: none"> Meets all of the 5 criteria with only minor variation. Scrub type of high biodiversity value in good condition. None of the indicators of poor condition are present
Moderate	<ul style="list-style-type: none"> The single woody species cover is greater than 75%. The age range is missing some size classes. Scrub type of high biodiversity value in poor condition. The scrub type has minor differences between what is described in the relevant habitat classifications and what is visible on site. Cover of undesirable and invasive species at 5-20%.
Poor	<ul style="list-style-type: none"> The single woody species cover is greater than 75%. The age range is missing some size classes. Scrub type of high biodiversity value in poor condition. The scrub type has minor differences between what is described in the relevant habitat classifications and what is visible on site. Cover of undesirable and invasive species at 5-20%. Single-age scrub present. Potentially restorable to improved scrub habitat with improved management. All of the condition criteria are being failed. The scrub type has major differences between what is described in the relevant habitat classifications and what is visible on site. Cover of undesirable and invasive species above 20% [see below]. All Rhododendron stands will be in this condition.
Condition Result	
Poor (1)	
Justification	
Monocultures of Blackthorn scrub which are lacking in species diversity and have therefore been designated as poor condition.	

Mixed Scrub

Phase 1 Habitat	Dense / continuous scrub		
UKHAB classification	Heathland and shrub - Mixed scrub		
Distinctiveness	Medium (4)	Area / Length	0.49 ha
Habitat Description			
This covers Biodiversity Metric scrub categories including; <ul style="list-style-type: none"> Bracken, Blackthorn, Bramble, Gorse, Hawthorn, Hazel, Mixed scrub, Sea blackthorn and Rhododendron, Rhododendron ponticum. 			
Scrub of high (distinctiveness) environmental value such as: <ul style="list-style-type: none"> Common juniper or box scrub. Scrub on calcareous soils with three or more of wayfaring-tree. Wild privet, dogwood, buckthorn, hawthorn and spindle. Native sea buckthorn scrub (on the east coast). Hazel. Scrub on peat soils with two or more of alder buckthorn, eared willow, goat willow, grey willow, bay willow, purple willow and osier. It excludes montane scrub (above 600 m altitude) which is covered under Heathland. South facing bracken stands with violets, when associated with UK priority butterfly species; high brown fritillary, pearl-bordered fritillary and small pearl-bordered fritillary. 			
Scrub of lower (distinctiveness) environmental value such as:			

<ul style="list-style-type: none"> • The majority of bracken stands. • Bramble. • Blackthorn, Hawthorn. • Gorse (unless as a low growing component of heathland habitat). Mixed scrub. 	
Condition Assessment Criteria	
<ol style="list-style-type: none"> 1. There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be 100% cover). 2. There is a good age range – a mixture of seedlings, saplings, young shrubs and mature shrubs. 3. Pernicious weeds and invasive species make up less than 5% of the ground cover. 4. The scrub has a well-developed edge with un-grazed tall herbs. 5. There are many clearings and glades within the scrub. 	
Condition	
Good	<ul style="list-style-type: none"> • Meets all of the 5 criteria with only minor variation. • Scrub type of high biodiversity value in good condition. • None of the indicators of poor condition are present
Moderate	<ul style="list-style-type: none"> • The single woody species cover is greater than 75%. • The age range is missing some size classes. • Scrub type of high biodiversity value in poor condition. • The scrub type has minor differences between what is described in the relevant habitat classifications and what is visible on site. • Cover of undesirable and invasive species at 5-20%.
Poor	<ul style="list-style-type: none"> • The single woody species cover is greater than 75%. • The age range is missing some size classes. • Scrub type of high biodiversity value in poor condition. • The scrub type has minor differences between what is described in the relevant habitat classifications and what is visible on site. • Cover of undesirable and invasive species at 5-20%. • Single-age scrub present. • Potentially restorable to improved scrub habitat with improved management. • All of the condition criteria are being failed. • The scrub type has major differences between what is described in the relevant habitat classifications and what is visible on site. • Cover of undesirable and invasive species above 20% [see below]. • All Rhododendron stands will be in this condition.
Condition Result	
Moderate (2)	
Justification	
<p>Southeastern and northwestern areas of scrub are generally well mixed in species composition, age range and size. These areas are dense in places, with few clearings or glades. The invasive non-native species Variegated Yellow Archangel is present at approx. 8% ground cover. These are in 'moderate' condition.</p>	

Woodland (poor condition)

Phase 1 Habitat	Broad-leaved semi-natural woodland		
UKHAB classification	Woodland and forest – Other woodland; mixed		
Distinctiveness	Medium (4)	Area / Length	0.04 ha
Habitat Description			
<p>Woodland is defined as vegetation dominated by trees more than 5 m high when mature, which forms a distinct, although sometimes open, canopy [areas of trees with a canopy greater than 20%]. This includes felled, young or newly planted woodland.</p> <ul style="list-style-type: none"> There is no minimum size for areas of trees that have the definite characteristics and feel of a woodland and are managed as woodland. Two broad woodland types are considered here: <ul style="list-style-type: none"> Broadleaved, mixed and yew woodland. Coniferous woodland. It does not include scrub. In England, native woodland is defined as woodland that is composed of at least 80% native tree species including 'naturalised species'. It is based on the England Woodland Biodiversity Group condition assessment for none SSSI woodlands. See https://woodlandwildlifetoolkit.sylva.org.uk/assess for more background and detailed information. <p>Wood Pasture and Parkland</p> <p>Wood pasture is a vegetation structure rather than a particular plant community. Typically, this structure consists of large, open-grown or high forest trees (often pollards) at various densities, in a matrix of grazed grassland, heathland and/or woodland floras.</p> <p>This feature includes:</p> <ul style="list-style-type: none"> Wood pasture and parkland derived from medieval forests and embankments, wooded commons, parks and pastures with trees; and where the land use has been converted to arable, forestry or amenity, but where ancient trees are still present. For wood pasture and parkland assessment established by PTES see https://ptes.org/campaigns/wood-pasture-parkland/wood-pasture-parkland-survey. 			
Condition Assessment Criteria			
<ol style="list-style-type: none"> This should be an area of trees with complete canopy cover. Native species are dominant. Non-native and invasive species account for less than 10% of the vegetation cover. A diverse age and height structure of the trees. Free from damage [Bark stripping; Browse line; Damage shoot tips] (in the last five years) from stock or wild mammals with less than 20% of vegetation being browsed. There should be evidence of successful (i.e. not browsed off before it gets well established) tree regeneration such as seedlings, saplings and young trees. Standing and fallen dead wood of over 20 cm diameter are present including fallen large dead branches/stems and stumps. Wetland habitat if they exist within the wood has little sign of drainage or channel straightening. The area is protected from damage by agricultural and other adjacent operations. There should be no evidence of inappropriate management (e.g. deep ruts, animal poaching or compaction). Invasive non-native plants are below 5% (see list below). No signs of significant nutrient enrichment present. 			

Condition	
Good	<ul style="list-style-type: none"> Meets at least 10 of the criteria with only minor variation. No more than 1 of the indicators of poor condition are present: Stands of native trees that do not obviously originate from planting should be classified as native semi-natural woodland.
Moderate	<ul style="list-style-type: none"> Clearly fails at least 2 of the criteria above. OR invasive non-native plants are 5-20%. OR where non-native species comprise more than 20% of the canopy, the woodland should be recorded as either non-native plantation or mixed woodland. A mixed woodland is woodland with native and non-native species. (This includes woodlands established by planting and by natural regeneration.) Trees of similar age and height structure throughout the woodland. Little standing or fallen deadwood present.
Poor	<p>The following characteristics can help to identify plantations: (note: BAP woodlands can be plantation woodlands)</p> <ul style="list-style-type: none"> Non-native trees often of a single species or the same age are the dominant component; OR invasive non-native plants are greater than 20%. Mixed species show a consistent planting pattern across the site. Original planting lines, or remains of planting lines, can be seen. Drainage features and channel straightening of watercourses.
Condition Result	
Poor (1)	
Justification	
An area of suckering Lombardy Poplar (<i>Populus nigra</i> 'italica') has out-competed other plants – a non-native tree is the dominant component and the condition is therefore poor.	

Woodland (moderate condition)

Phase 1 Habitat	Broad-leaved semi-natural woodland		
UKHAB classification	Woodland and forest – Other woodland; mixed		
Distinctiveness	Medium (4)	Area / Length	0.06 ha
Habitat Description			
<p>Woodland is defined as vegetation dominated by trees more than 5 m high when mature, which forms a distinct, although sometimes open, canopy [areas of trees with a canopy greater than 20%]. This includes felled, young or newly planted woodland.</p> <ul style="list-style-type: none"> There is no minimum size for areas of trees that have the definite characteristics and feel of a woodland and are managed as woodland. Two broad woodland types are considered here: <ul style="list-style-type: none"> Broadleaved, mixed and yew woodland. Coniferous woodland. It does not include scrub. In England, native woodland is defined as woodland that is composed of at least 80% native tree species including 'naturalised species'. It is based on the England Woodland Biodiversity Group condition assessment for none SSSI woodlands. See https://woodlandwildlifetoolkit.sylva.org.uk/assess for more background and detailed information. <p>Wood Pasture and Parkland</p> <p>Wood pasture is a vegetation structure rather than a particular plant community. Typically, this structure consists of large, open-grown or high forest trees (often pollards) at various densities, in a matrix of grazed grassland, heathland and/or woodland floras.</p> <p>This feature includes:</p> <ul style="list-style-type: none"> Wood pasture and parkland derived from medieval forests and embankments, wooded commons, parks and pastures with trees; and where the land use has been converted to arable, forestry or amenity, but where ancient trees are still present. For wood pasture and parkland assessment established by PTES see https://ptes.org/campaigns/wood-pasture-parkland/wood-pasture-parkland-survey. 			

Condition Assessment Criteria	
<ol style="list-style-type: none"> 1. This should be an area of trees with complete canopy cover. 2. Native species are dominant. Non-native and invasive species account for less than 10% of the vegetation cover. 3. A diverse age and height structure of the trees. 4. Free from damage [Bark stripping; Browse line; Damage shoot tips] (in the last five years) from stock or wild mammals with less than 20% of vegetation being browsed. 5. There should be evidence of successful (i.e. not browsed off before it gets well established) tree regeneration such as seedlings, saplings and young trees. 6. Standing and fallen dead wood of over 20 cm diameter are present including fallen large dead branches/stems and stumps. 7. Wetland habitat if they exist within the wood has little sign of drainage or channel straightening. 8. The area is protected from damage by agricultural and other adjacent operations. 9. There should be no evidence of inappropriate management (e.g. deep ruts, animal poaching or compaction). 10. Invasive non-native plants are below 5% (see list below). 11. No signs of significant nutrient enrichment present. 	
Condition	
Good	<ul style="list-style-type: none"> • Meets at least 10 of the criteria with only minor variation. • No more than 1 of the indicators of poor condition are present: • Stands of native trees that do not obviously originate from planting should be classified as native semi-natural woodland.
Moderate	<ul style="list-style-type: none"> • Clearly fails at least 2 of the criteria above. • OR invasive non-native plants are 5-20%. • OR where non-native species comprise more than 20% of the canopy, the woodland should be recorded as either non-native plantation or mixed woodland. • A mixed woodland is woodland with native and non-native species. (This includes woodlands established by planting and by natural regeneration.) • Trees of similar age and height structure throughout the woodland. • Little standing or fallen deadwood present.
Poor	<p>The following characteristics can help to identify plantations: (note: BAP woodlands can be plantation woodlands)</p> <ul style="list-style-type: none"> • Non-native trees often of a single species or the same age are the dominant component; • OR invasive non-native plants are greater than 20%. • Mixed species show a consistent planting pattern across the site. • Original planting lines, or remains of planting lines, can be seen. • Drainage features and channel straightening of watercourses.
Condition Result	
Moderate (2)	
Justification	
<p>The south eastern line of Crack-willow (<i>Salix x fragilis</i>) has a good range of ages and heights and some standing dead wood, but is otherwise lacking diversity and has a population of non-native Variegated Yellow Archangel (<i>Lamium galeobdolon</i>). This area is in 'moderate' condition.</p>	

APPENDIX D – POST-DEVELOPMENT DETAILED CONDITION ASSESSMENTS

This appendix presents the assessment of the post-development habitats against the condition sheets in the biodiversity metric 2.0 technical supplement published by Crosher et al., (2019a). Any deviations from the published guidance is explained and justified.

Grassland Enhancement

Phase 1 Habitat	Semi-improved Neutral Grassland		
UKHAB classification	Grassland – Other Neutral Grassland		
Distinctiveness	Medium (4)	Area / Length	0.24 ha
Habitat Description			
<ul style="list-style-type: none"> Includes both agricultural, recreational, amenity, road verges and semi-natural grassland types including Priority Habitat Grasslands on all soil types. Will be dominated by grassland species with very little (if any) dwarf shrub, wetland or wooded species within the sward. Will exist above and below the level of enclosure at all altitudes. 			
Condition Assessment Criteria			
<ol style="list-style-type: none"> The area is clearly and easily recognisable as a good example of this type of habitat and there is little difference between what is described in the relevant habitat classifications and what is visible on site. The appearance and composition of the vegetation on site should very closely match the characteristics for the specific Priority Habitat [i.e as described by either the Phase 1 Habitat Classification or the UK Habitat Classification], with species typical of the habitat representing a significant majority of the vegetation. Wildflowers, sedges and indicator species for the specific Priority grassland habitat are very clearly and easily visible throughout the sward and occur at high densities in high frequency. See relevant Habitat Classification for details of indicator species for specific habitat. Undesirable species and physical damage is below 5% cover. Cover of bare ground greater than 10% (including localised areas, for example, rabbit warrens). Cover of bracken less than 20% and cover of scrub and bramble less than 5%. 			

Condition	
Good	<ul style="list-style-type: none"> Species-rich Grassland of all Priority Habitat Types. Of high to moderate quality. Wildflower and sedges above 30% excluding white clover <i>Trifolium repens</i>, creeping buttercup <i>Ranunculus repens</i> and injurious weeds. Meets all the condition criteria with only minor variation. None of the indicators of poor condition are present (4, 5 & 6).
Moderate	<ul style="list-style-type: none"> Semi-improved grassland occurs on a wide range of soils and may be derived from higher quality Priority Habitat grassland habitats in poor condition. Often as they deteriorate following nutrient inputs. Typical grasses include: cock's-foot, common bent, creeping bent, crested dog's-tail, false oat-grass, meadow fescue, meadow foxtail, red fescue, sweet vernal grass, Timothy, tufted hair-grass and Yorkshire-fog. Total cover of wildflowers and sedges less than 30%, excluding white clover, creeping buttercup and injurious weeds. Rye-grass cover is less than 25% including amenity grasslands. OR clearly fails at least 1 of the condition criteria. OR The grassland type has some differences between what is described in the relevant habitat classifications and what is visible on site. It is a Lower Quality Priority Habitat, but clearly recognisable as such. Potentially restorable to grassland Priority Habitat with improved management. Cover of undesirable species at 5- 15%.
Poor	<ul style="list-style-type: none"> Agricultural grasslands is characterised by vegetation dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of rye-grass <i>Lolium</i> spp. (above 25% cover) and white clover <i>Trifolium repens</i>. These grasslands are typically either managed as pasture or mown regularly for silage production or in non-agricultural contexts for recreation and amenity purposes; they are often periodically re-sown and are maintained by fertiliser treatment and weed control. They may also be temporary and sown as part of the rotation of arable crops but they are only included in this broad habitat type if they are more than one year old. Amenity and Road verge grasslands with similar species to description for agriculture grasslands. OR Most of the condition criteria are being failed. Cover of undesirable species above 15%, usually resulting in a dense scrub or tree cover, or high cover of exotic species.
Condition Result	
Fairly poor (1)	
Justification	
Through management the areas of retained grassland will be enhanced to a fairly poor condition using default difficulty and time to target condition multipliers.	

Bramble Scrub Enhancement

Phase 1 Habitat	Dense / continuous scrub		
UKHAB classification	Heathland and shrub – Bramble scrub		
Distinctiveness	Medium (4)	Area / Length	0.05 ha
Habitat Description			
<p>This covers Biodiversity Metric scrub categories including;</p> <ul style="list-style-type: none"> • Bracken, Blackthorn, Bramble, Gorse, Hawthorn, Hazel, Mixed scrub, Sea blackthorn and Rhododendron, Rhododendron ponticum. <p>Scrub of high (distinctiveness) environmental value such as:</p> <ul style="list-style-type: none"> • Common juniper or box scrub. • Scrub on calcareous soils with three or more of wayfaring-tree. • Wild privet, dogwood, buckthorn, hawthorn and spindle. • Native sea buckthorn scrub (on the east coast). • Hazel. • Scrub on peat soils with two or more of alder buckthorn, eared willow, goat willow, grey willow, bay willow, purple willow and osier. • It excludes montane scrub (above 600 m altitude) which is covered under Heathland. • South facing bracken stands with violets, when associated with UK priority butterfly species; high brown fritillary, pearl-bordered fritillary and small pearl-bordered fritillary. <p>Scrub of lower (distinctiveness) environmental value such as:</p> <ul style="list-style-type: none"> • The majority of bracken stands. • Bramble. • Blackthorn, Hawthorn. • Gorse (unless as a low growing component of heathland habitat). • Mixed scrub. 			
Condition Assessment Criteria			
<ol style="list-style-type: none"> 1. There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be 100% cover). 2. There is a good age range – a mixture of seedlings, saplings, young shrubs and mature shrubs. 3. Pernicious weeds and invasive species make up less than 5% of the ground cover. 4. The scrub has a well-developed edge with un-grazed tall herbs. 5. There are many clearings and glades within the scrub. 			

Condition	
Good	<ul style="list-style-type: none"> Meets all of the 5 criteria with only minor variation. Scrub type of high biodiversity value in good condition. None of the indicators of poor condition are present
Moderate	<ul style="list-style-type: none"> The single woody species cover is greater than 75%. The age range is missing some size classes. Scrub type of high biodiversity value in poor condition. The scrub type has minor differences between what is described in the relevant habitat classifications and what is visible on site. Cover of undesirable and invasive species at 5-20%.
Poor	<ul style="list-style-type: none"> The single woody species cover is greater than 75%. The age range is missing some size classes. Scrub type of high biodiversity value in poor condition. The scrub type has minor differences between what is described in the relevant habitat classifications and what is visible on site. Cover of undesirable and invasive species at 5-20%. Single-age scrub present. Potentially restorable to improved scrub habitat with improved management. All of the condition criteria are being failed. The scrub type has major differences between what is described in the relevant habitat classifications and what is visible on site. Cover of undesirable and invasive species above 20% [see below]. All Rhododendron stands will be in this condition.
Condition Result	
Moderate or Good (2)	
Justification	
<p>To enhance the areas of bramble scrub additional woody species will be planted to increase the diversity, size and ages ranges enhancing the areas to moderate or good condition using default time to target condition and difficulty values. Returning this area to a good condition , although easily achieved with sustained management, is not at all crucial to the delivery of >10% BNG at this site.</p>	

Blackthorn Scrub Enhancement

Phase 1 Habitat	Dense / continuous scrub		
UKHAB classification	Heathland and shrub – Blackthorn Scrub		
Distinctiveness	Medium (4)	Area / Length	0.01 ha
Habitat Description			
<p>This covers Biodiversity Metric scrub categories including;</p> <ul style="list-style-type: none"> Bracken, Blackthorn, Bramble, Gorse, Hawthorn, Hazel, Mixed scrub, Sea blackthorn and Rhododendron, Rhododendron ponticum. <p>Scrub of high (distinctiveness) environmental value such as:</p> <ul style="list-style-type: none"> Common juniper or box scrub. Scrub on calcareous soils with three or more of wayfaring-tree. Wild privet, dogwood, buckthorn, hawthorn and spindle. Native sea buckthorn scrub (on the east coast). Hazel. Scrub on peat soils with two or more of alder buckthorn, eared willow, goat willow, grey willow, bay willow, purple willow and osier. It excludes montane scrub (above 600 m altitude) which is covered under Heathland. South facing bracken stands with violets, when associated with UK priority butterfly species; high brown fritillary, pearl-bordered fritillary and small pearl-bordered fritillary. <p>Scrub of lower (distinctiveness) environmental value such as:</p> <ul style="list-style-type: none"> The majority of bracken stands. Bramble. Blackthorn, Hawthorn. Gorse (unless as a low growing component of heathland habitat). Mixed scrub. 			

Condition Assessment Criteria	
1. There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be 100% cover). 2. There is a good age range – a mixture of seedlings, saplings, young shrubs and mature shrubs. 3. Pernicious weeds and invasive species make up less than 5% of the ground cover. 4. The scrub has a well-developed edge with un-grazed tall herbs. 5. There are many clearings and glades within the scrub.	
Condition	
Good	<ul style="list-style-type: none"> Meets all of the 5 criteria with only minor variation. Scrub type of high biodiversity value in good condition. None of the indicators of poor condition are present
Moderate	<ul style="list-style-type: none"> The single woody species cover is greater than 75%. The age range is missing some size classes. Scrub type of high biodiversity value in poor condition. The scrub type has minor differences between what is described in the relevant habitat classifications and what is visible on site. Cover of undesirable and invasive species at 5-20%.
Poor	<ul style="list-style-type: none"> The single woody species cover is greater than 75%. The age range is missing some size classes. Scrub type of high biodiversity value in poor condition. The scrub type has minor differences between what is described in the relevant habitat classifications and what is visible on site. Cover of undesirable and invasive species at 5-20%. Single-age scrub present. Potentially restorable to improved scrub habitat with improved management. All of the condition criteria are being failed. The scrub type has major differences between what is described in the relevant habitat classifications and what is visible on site. Cover of undesirable and invasive species above 20% [see below]. All Rhododendron stands will be in this condition.
Condition Result	
Moderate (2)	
Justification	
To enhance the areas of bramble scrub additional woody species will be planted to increase the diversity, size and ages ranges enhancing the areas to moderate or good condition using default time to target condition and difficulty values. Returning this area to a good condition , although easily achieved with sustained management, is not at all crucial to the delivery of >10% BNG at this site.	

Mixed Scrub Enhancement

Phase 1 Habitat	Dense / continuous scrub		
UKHAB classification	Heathland and shrub – Mixed Scrub		
Distinctiveness	Medium (4)	Area / Length	0.4 ha
Habitat Description			
This covers Biodiversity Metric scrub categories including; <ul style="list-style-type: none"> Bracken, Blackthorn, Bramble, Gorse, Hawthorn, Hazel, Mixed scrub, Sea blackthorn and Rhododendron, Rhododendron ponticum. 			
Scrub of high (distinctiveness) environmental value such as: <ul style="list-style-type: none"> Common juniper or box scrub. Scrub on calcareous soils with three or more of wayfaring-tree. Wild privet, dogwood, buckthorn, hawthorn and spindle. Native sea buckthorn scrub (on the east coast). Hazel. Scrub on peat soils with two or more of alder buckthorn, eared willow, goat willow, grey willow, bay willow, purple willow and osier. 			

- It excludes montane scrub (above 600 m altitude) which is covered under Heathland.
- South facing bracken stands with violets, when associated with UK priority butterfly species; high brown fritillary, pearl-bordered fritillary and small pearl-bordered fritillary.

Scrub of lower (distinctiveness) environmental value such as:

- The majority of bracken stands.
- Bramble.
- Blackthorn, Hawthorn.
- Gorse (unless as a low growing component of heathland habitat).
- Mixed scrub.

Condition Assessment Criteria

- There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be 100% cover).
- There is a good age range – a mixture of seedlings, saplings, young shrubs and mature shrubs.
- Pernicious weeds and invasive species make up less than 5% of the ground cover.
- The scrub has a well-developed edge with un-grazed tall herbs.
- There are many clearings and glades within the scrub.

Condition

Good	<ul style="list-style-type: none"> • Meets all of the 5 criteria with only minor variation. • Scrub type of high biodiversity value in good condition. • None of the indicators of poor condition are present
Moderate	<ul style="list-style-type: none"> • The single woody species cover is greater than 75%. • The age range is missing some size classes. • Scrub type of high biodiversity value in poor condition. • The scrub type has minor differences between what is described in the relevant habitat classifications and what is visible on site. • Cover of undesirable and invasive species at 5-20%.
Poor	<ul style="list-style-type: none"> • The single woody species cover is greater than 75%. • The age range is missing some size classes. • Scrub type of high biodiversity value in poor condition. • The scrub type has minor differences between what is described in the relevant habitat classifications and what is visible on site. • Cover of undesirable and invasive species at 5-20%. • Single-age scrub present. • Potentially restorable to improved scrub habitat with improved management. • All of the condition criteria are being failed. • The scrub type has major differences between what is described in the relevant habitat classifications and what is visible on site. • Cover of undesirable and invasive species above 20% [see below]. • All Rhododendron stands will be in this condition.

Condition Result

Good (2)

Justification

This area can be enhanced to good condition by the creation of clearings and glades, and by control of Variegated Yellow Archangel. Returning this area to a good or fairly good condition IS crucial to the delivery of >10% BNG at this site.

Woodland Enhancement

Phase 1 Habitat	Broad-leaved semi-natural woodland		
UKHAB classification	Woodland and forest – Other woodland; mixed		
Distinctiveness	Medium (4)	Area / Length	0.03 ha
Habitat Description			
<p>Woodland is defined as vegetation dominated by trees more than 5 m high when mature, which forms a distinct, although sometimes open, canopy [areas of trees with a canopy greater than 20%]. This includes felled, young or newly planted woodland.</p> <ul style="list-style-type: none"> There is no minimum size for areas of trees that have the definite characteristics and feel of a woodland and are managed as woodland. Two broad woodland types are considered here: <ul style="list-style-type: none"> Broadleaved, mixed and yew woodland. Coniferous woodland. It does not include scrub. In England, native woodland is defined as woodland that is composed of at least 80% native tree species including 'naturalised species'. It is based on the England Woodland Biodiversity Group condition assessment for none SSSI woodlands. See https://woodlandwildlifetoolkit.sylva.org.uk/assess for more background and detailed information. <p>Wood Pasture and Parkland</p> <p>Wood pasture is a vegetation structure rather than a particular plant community. Typically, this structure consists of large, open-grown or high forest trees (often pollards) at various densities, in a matrix of grazed grassland, heathland and/or woodland floras.</p> <p>This feature includes:</p> <ul style="list-style-type: none"> Wood pasture and parkland derived from medieval forests and embankments, wooded commons, parks and pastures with trees; and where the land use has been converted to arable, forestry or amenity, but where ancient trees are still present. For wood pasture and parkland assessment established by PTES see https://ptes.org/campaigns/wood-pasture-parkland/wood-pasture-parkland-survey. 			
Condition Assessment Criteria			
<ol style="list-style-type: none"> This should be an area of trees with complete canopy cover. Native species are dominant. Non-native and invasive species account for less than 10% of the vegetation cover. A diverse age and height structure of the trees. Free from damage [Bark stripping; Browse line; Damage shoot tips] (in the last five years) from stock or wild mammals with less than 20% of vegetation being browsed. There should be evidence of successful (i.e. not browsed off before it gets well established) tree regeneration such as seedlings, saplings and young trees. Standing and fallen dead wood of over 20 cm diameter are present including fallen large dead branches/stems and stumps. Wetland habitat if they exist within the wood has little sign of drainage or channel straightening. The area is protected from damage by agricultural and other adjacent operations. There should be no evidence of inappropriate management (e.g. deep ruts, animal poaching or compaction). Invasive non-native plants are below 5% (see list below). No signs of significant nutrient enrichment present. 			

Condition	
Good	<ul style="list-style-type: none"> Meets at least 10 of the criteria with only minor variation. No more than 1 of the indicators of poor condition are present: Stands of native trees that do not obviously originate from planting should be classified as native semi-natural woodland.
Moderate	<ul style="list-style-type: none"> Clearly fails at least 2 of the criteria above. OR invasive non-native plants are 5-20%. OR where non-native species comprise more than 20% of the canopy, the woodland should be recorded as either non-native plantation or mixed woodland. A mixed woodland is woodland with native and non-native species. (This includes woodlands established by planting and by natural regeneration.) Trees of similar age and height structure throughout the woodland. Little standing or fallen deadwood present.
Poor	<p>The following characteristics can help to identify plantations: (note: BAP woodlands can be plantation woodlands)</p> <ul style="list-style-type: none"> Non-native trees often of a single species or the same age are the dominant component; OR invasive non-native plants are greater than 20%. Mixed species show a consistent planting pattern across the site. Original planting lines, or remains of planting lines, can be seen. Drainage features and channel straightening of watercourses.
Condition Result	
Moderate (4)	
Justification	
Through management and planting of native trees the areas of poor condition woodland will be enhancement to moderate condition using default time to target condition and difficulty values.	

Grassland Creation

Phase 1 Habitat	Semi-improved Neutral Grassland		
UKHAB classification	Grassland – Other Neutral Grassland		
Distinctiveness	Medium (4)	Area / Length	0.15 ha
Habitat Description			
<ul style="list-style-type: none"> Includes both agricultural, recreational, amenity, road verges and semi-natural grassland types including Priority Habitat Grasslands on all soil types. Will be dominated by grassland species with very little (if any) dwarf shrub, wetland or wooded species within the sward. Will exist above and below the level of enclosure at all altitudes. 			
Condition Assessment Criteria			
<ol style="list-style-type: none"> The area is clearly and easily recognisable as a good example of this type of habitat and there is little difference between what is described in the relevant habitat classifications and what is visible on site. The appearance and composition of the vegetation on site should very closely match the characteristics for the specific Priority Habitat [i.e as described by either the Phase 1 Habitat Classification or the UK Habitat Classification], with species typical of the habitat representing a significant majority of the vegetation. Wildflowers, sedges and indicator species for the specific Priority grassland habitat are very clearly and easily visible throughout the sward and occur at high densities in high frequency. See relevant Habitat Classification for details of indicator species for specific habitat. Undesirable species and physical damage is below 5% cover. Cover of bare ground greater than 10% (including localised areas, for example, rabbit warrens). Cover of bracken less than 20% and cover of scrub and bramble less than 5%. 			

Condition	
Good	<ul style="list-style-type: none"> Species-rich Grassland of all Priority Habitat Types. Of high to moderate quality. Wildflower and sedges above 30% excluding white clover <i>Trifolium repens</i>, creeping buttercup <i>Ranunculus repens</i> and injurious weeds. Meets all the condition criteria with only minor variation. None of the indicators of poor condition are present (4, 5 & 6).
Moderate	<ul style="list-style-type: none"> Semi-improved grassland occurs on a wide range of soils and may be derived from higher quality Priority Habitat grassland habitats in poor condition. Often as they deteriorate following nutrient inputs. Typical grasses include: cock's-foot, common bent, creeping bent, crested dog's-tail, false oat-grass, meadow fescue, meadow foxtail, red fescue, sweet vernal grass, Timothy, tufted hair-grass and Yorkshire-fog. Total cover of wildflowers and sedges less than 30%, excluding white clover, creeping buttercup and injurious weeds. Rye-grass cover is less than 25% including amenity grasslands. OR clearly fails at least 1 of the condition criteria. OR The grassland type has some differences between what is described in the relevant habitat classifications and what is visible on site. It is a Lower Quality Priority Habitat, but clearly recognisable as such. Potentially restorable to grassland Priority Habitat with improved management. Cover of undesirable species at 5- 15%.
Poor	<ul style="list-style-type: none"> Agricultural grasslands is characterised by vegetation dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of rye-grass <i>Lolium</i> spp. (above 25% cover) and white clover <i>Trifolium repens</i>. These grasslands are typically either managed as pasture or mown regularly for silage production or in non-agricultural contexts for recreation and amenity purposes; they are often periodically re-sown and are maintained by fertiliser treatment and weed control. They may also be temporary and sown as part of the rotation of arable crops but they are only included in this broad habitat type if they are more than one year old. Amenity and Road verge grasslands with similar species to description for agriculture grasslands. OR Most of the condition criteria are being failed. Cover of undesirable species above 15%, usually resulting in a dense scrub or tree cover, or high cover of exotic species.
Condition Result	
Moderate (2)	
Justification	
To allow enough space for the development it has been assumed that a 10m buffer of habitats will be lost and then re-created with at least a moderate condition using default time to target condition and difficulty values.	

Developed Land; Sealed Surface Creation

Phase 1 Habitat	Hardstanding / Buildings		
UKHAB classification	Urban – Developed land; sealed surface		
Distinctiveness	Very Low (0)	Area / Length	0.18 ha
Habitat Description			
Hardstanding and buildings			
Condition Assessment Criteria			
N/A			
Condition			
Good	N/A		
Moderate	N/A		
Poor	N/A		
Condition Result			N/A Other (0)
Justification			
The developed land consists of the proposed building, car park and associated hardstanding infrastructure.			

Pond Creation

Phase 1 Habitat	Standing water		
UKHAB classification	Lakes – Ponds (Priority Habitat)		
Distinctiveness	High (6)	Area / Length	0.02
Habitat Description			
<ul style="list-style-type: none"> This covers all water bodies up to 1 ha in area. Expert judgement should be used to decide if a water body between 1 and 2 ha area is assessed as a pond or as a lake. It includes sunny or shaded and temporary or permanent ponds at any stage of succession, from newly created ponds to ones that are completely overgrown. It also includes scrapes, and other temporary ponds which may be dry certain times of the year. 			
Condition Assessment Criteria			
<ol style="list-style-type: none"> Are of good water quality, with clear water (substrate can be seen) and no obvious sign of pollution in the water body. The water body should have semi natural riparian land for at least 10 m from the pond edge. Non-woodland ponds should be dominated by plants, be they submerged or floating (note dominance of duckweed is a sign of eutrophication). Non-woodland ponds [i.e. that have always been open] should not be shaded more than 50% Many ponds will be fishless, those which naturally contain fish should not be stocked and should contain a native fish assemblage. Ponds should not be artificially connected to other water bodies, e.g. ditches. Pond water levels should be able to fluctuate naturally throughout the year. Non-native species should be absent. Less than 10% of the pond should be covered with duckweed or filamentous algae. 			
Condition			
Good	<ul style="list-style-type: none"> Meets the majority of the criteria with only minor variation. Few of the indicators of poor condition are present. 		
Moderate	<ul style="list-style-type: none"> Fails a number of the criteria above. Where non-native species comprise more than 10% of the vegetation. There is only moderate water quality. There is insufficient extent of semi natural riparian land. Water levels are subject to some control. There are some artificial connections to other water bodies, but they are not delivering water of poor water quality or preventing water level fluctuations. Fish have been stocked at a low density, but they are native species and there is sufficient aquatic plants and habitat heterogeneity to reduce the effects of predation. Moderate shading of non-woodland ponds. Submerged and floating plants are limited but still presence. 		
Poor	<ul style="list-style-type: none"> Ponds in poor health. Fails the majority of criteria. Poor water quality present. Extensive filamentous algae or duckweed. Absence of semi-natural riparian land. No natural fluctuations in water levels. Extensive non-native species. High density of stocked fish. Absence of submerged and floating plants (unless naturally a shaded woodland pond). Non-woodland ponds completely over-grown with trees and scrub. 		
Condition Result			Moderate (2)
Justification			
The pond will be planted with a marginal mix, will not be shaded, will be fishless and able to fluctuate. Unlike that nearby conditions would lead to highly eutrophic conditions.			

