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Ecological Consultants
Environmental and Rural Chartered Surveyors

Biodiversity Net Gain

Bourble's Lane, Pilling

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ACCURACY OF REPORT

This report has been compiled based on the methodology as detailed and the professional experience of the surveyor. Whilst the report reflects the situation found as accurately as possible, all of the protected species this survey covers are wild and can move freely from site to site. Their presence or absence detailed in this report does not entirely preclude the possibility of a different past, current or future use of the site surveyed.

We would ask all clients acting upon the contents of this report to show due diligence when undertaking work on their site and/or in their interaction with protected species. If protected species are found during a work programme, and continuing the work programme could result in their disturbance, injury or death, either directly or indirectly an offence may be committed.

If in doubt, stop work and seek further professional advice.

Quality and Environmental Assurance

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INTRODUCTION

Purpose of this Report

Envirotech were requested to carry out a biodiversity assessment of Bourble's Lane, Pilling. The aim was for an ecologist with botanical expertise to carry out a site visit to map the habitat types present at the site in order to establish the biodiversity baseline.

Each habitat type was mapped using the standard habitat mapping convention using Phase 1 habitat survey (JNCC, 2010) which was subsequently converted into the UK Habitat Classification (Butcher et al., 2020) for the purposes of using the Defra metric.

Using the findings of the baseline surveys, pre-construction ecology was measured against proposed habitat changes arising from future ecological enhancements based on an Illustrative Landscape Plan (post-construction) provided by the client.

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.

Ecological Context

The site is 20.49ha and *Figure 1* shows the site location.

Figure 1 – *Site location*

Policy context

The primary aims of Biodiversity Net Gain are 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 National Planning Policy Framework (NPPF) makes provisions for the delivery of biodiversity net gain. Additionally, there is a proposed 10% net gain requirement in the Environment Bill. There is currently no statutory requirement to deliver mandatory 10% biodiversity net gain as the secondary legislation to do so has not yet been brought in.

METHODS

Introduction

The biodiversity metric 4 is designed to quantify biodiversity to inform and improve planning, design, land management and decision-making (Natural England, 2023).

This study has been carried out as a desk-based exercise, using the results of field surveys carried out at the site by Envirotech and an Illustrative Landscape Plan provided by the client.

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 4 user guide (Natural England, 2023).

The biodiversity metric uses three core measurements:

- Habitat area
- Length of linear terrestrial habitats
- Length of linear aquatic habitats.

Consequently, a site can have three biodiversity unit values, which 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 habitats. In addition, when 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).

Habitat Distinctiveness

Habitats are classified using the phase 1 habitat survey methodology (JNCC 2010) or 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 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.

Habitat Condition

Habitat condition measures the varying quality of similar habitats against what is perceived to be their optimal state. The biodiversity metric 4 technical supplement (Natural England, 2023) 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.

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.

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 4 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.

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 4 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.

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.

BIODIVERSITY ASSESSMENT

Biodiversity Baseline

The phase 1 habitat survey map (Figure 2) has been used to identify 11 habitat areas, three linear habitats and one water course habitat.

Conversion from Phase 1 habitats to UK Habs was done thus

Improved Grassland = Modified grassland
Bare Ground = Bare ground
Amenity Grassland = Modified grassland
Arable = Cereal crops
Neutral Grassland – Semi-improved = Other neutral grassland
Standing Water = Ponds (non-priority habitat)
Marsh/ Marshy grassland = Other neutral grassland
Hard standing = Artificial unvegetated, unsealed surface
Woodland Broadleaved Semi-natural - Other woodland; broadleaved
Intact Hedge Species poor = Native hedgerow
Intact Hedge Species poor (with ditch) = Native hedgerow - associated with bank or ditch
Ditch = Ditch
Dry Ditch = Area included within adjacent field habitat

These habitats were mapped and split between those areas inside the Biological Heritage Site and or Lancashire Grassland Ecological Network. Data was then input into the Defra Biodiversity Metric 4 calculator following condition assessment, appended, and indicate a total of 89.82 area units, 4.42 terrestrial linear units and 1.47 Watercourse 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 'Metric 4.0 Calculation Tool Bourbles Lane Rev 1".

The condition assessments for each of the linear, area and watercourse habitats are presented in Appendix C. No deviations have been made from the default methods for baseline habitats assessment.

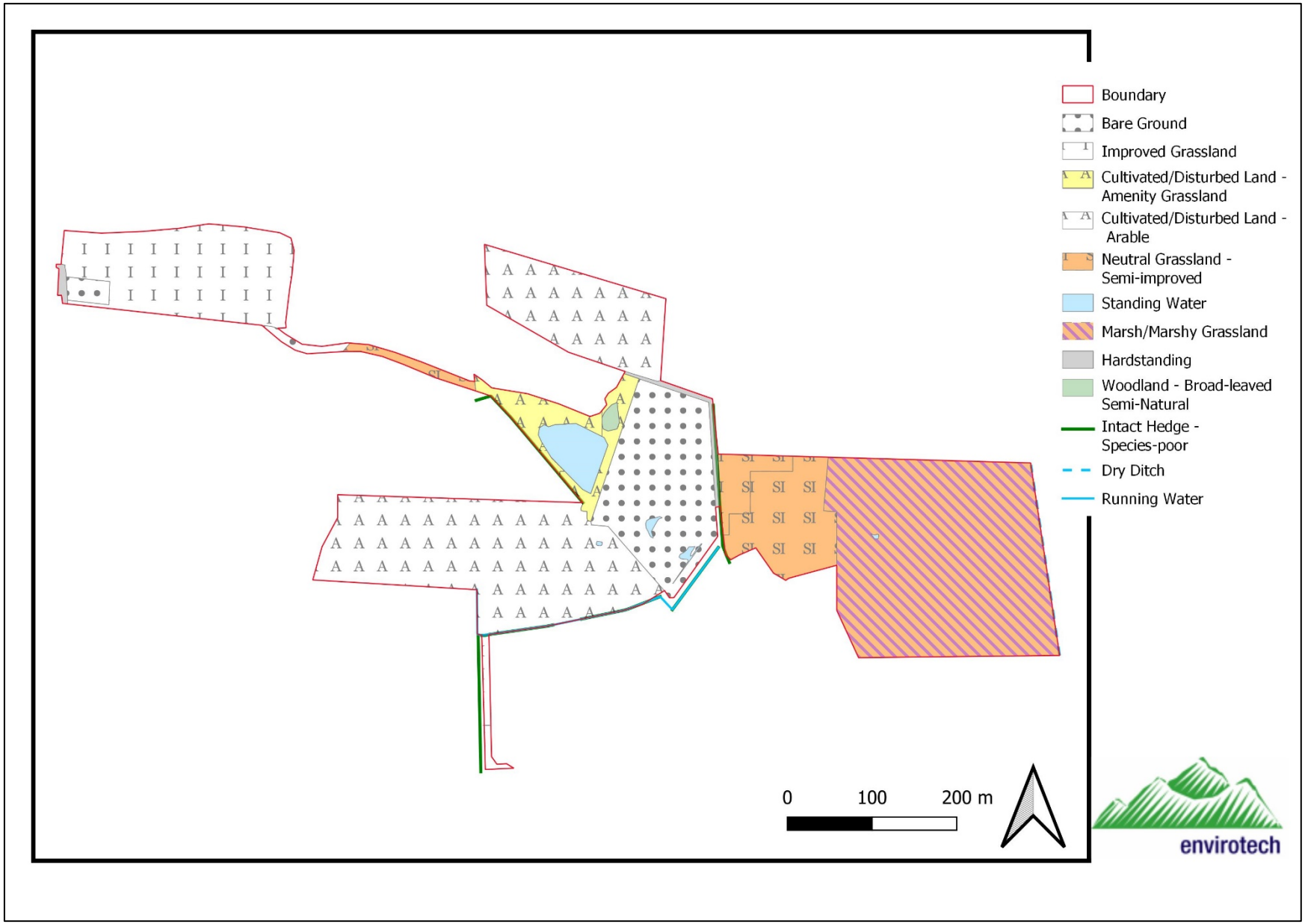

Figure 2 – *Habitats*

Post-development Habitat Creation and Enhancement

The Illustrative Landscape Plan has been used to identify that there will be one retained area habitat, hard standing to a road, and 18 new area habitats.

There will be four retained linear habitats and five new linear habitats.

There is one enhanced watercourse habitat.

Whilst BNG guidelines suggest that if a habitat is lost and then recreated within one year, it is classed as retained or enhanced not lost. We have taken each habitat to be lost, then recreated within one year due to the complete removal of topsoil, storage then reprofiling of the site. This lowers the overall post development BNG but reflects a worst case scenario.

The reversion of arable to neutral grassland should be possible due to the potential to invert the topsoil and subsoil, burying nutrient rich soils below the rooting area for wildflowers and grasses to be planted.

Delays in creation have been set to one year for each of the phases, stripping and restoration is expected to occur within 12months. Delays in creation of habitats at the processing site are set to four years. Hedge planting is set to a 2 year delay as hedges can only be planted over winter and the first season planting can occur may be missed. The delay settings are therefore considered to be conservative.

It is envisaged a detailed Biodiversity Enhancement and Management Plan (BEMP) will be conditioned which will provide detail on the planting types, scheduling of restoration and management.

The above data has been put in to the Biodiversity Metric 4, accounting for habitats inside and outside the BHS and or Lancashire Grassland Ecological Network and would comprise a total of 112.40 biodiversity area units, 14.53 terrestrial linear biodiversity units and 2.21 watercourse units.

There are no changes to default values for post development habitats where these are pre-set by the metric.

Details of the assumptions made to achieve the proposed conditions are found in Appendix D.

Target notes on the Figure 3 can be cross referenced to the notes on the metric spreadsheet.

Figure 3- *Illustrative landscape plan*

Change in Biodiversity Value

Under the current proposals set out in the Illustrative Landscape Plan there will be a GAIN of 22.58 biodiversity area units (+25.14%), and a GAIN of 10.11 terrestrial linear biodiversity units (+229.01%) and a GAIN of 0.74 Watercourse Units (+50.38%). This is shown in Table 1. Trading rules are met.

Table 1. *Change in Biodiversity Units Calculation*

On-site baseline	*Habitat units*	**89.82**
	Hedgerow units	**4.42**
	Watercourse units	**1.47**
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	**112.40**
	Hedgerow units	**14.53**
	Watercourse units	**2.21**
On-site net change (units & percentage)	*Habitat units*	**22.58**
	Hedgerow units	**10.11**
	Watercourse units	**0.74**
Off-site baseline	*Habitat units*	**0.00**
	Hedgerow units	**0.00**
	Watercourse units	**0.00**
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	**0.00**
	Hedgerow units	**0.00**
	Watercourse units	**0.00**
Off-site net change (units & percentage)	*Habitat units*	**0.00**
	Hedgerow units	**0.00**
	Watercourse units	**0.00**
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	**22.58**
	Hedgerow units	**10.11**
	Watercourse units	**0.74**
Spatial risk multiplier (SRM) deductions	*Habitat units*	**0.00**
	Hedgerow units	**0.00**
	Watercourse units	**0.00**
FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	**22.58**
	Hedgerow units	**10.11**
	Watercourse units	**0.74**
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	**25.14%**
	Hedgerow units	**229.01%**
	Watercourse units	**50.38%**
Trading rules satisfied?	**Yes✓**	

REFERENCES

Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020), UK Habitat Classification – Habitat Definitions V1.1 at http://ukhab.org

Natural England 2023. Natural England Joint Publication JP039 The Biodiversity Metric 4.0 User Guide Defra Group. Natural England.

JNCC. (2010), Handbook for Phase 1 Habitat Survey (revised). JNCC, Peterborough.

APPENDIX A- METRICS TABLES – BASELINE

	Existing area habitats			Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Ecological baseline	Retention category biodiversity value						Bespoke compensation agreed for unacceptable losses	Comments		
Ref	Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic Significance multiplier		Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area habitat lost	Units lost		User comments	Consenting body comments	GIS reference number
1	Grassland	Modified grassland	2.547	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	5.09			0.00	0.00	2.55	5.09		Horse paddocks Phase 1		
2	Urban	Bare ground	0.093	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.19			0.00	0.00	0.09	0.19		Bare ground Phase 1		
3	Grassland	Other neutral grassland	0.16	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (2=)	0.64			0.00	0.00	0.16	0.64		Narrow strip of ground recently re-seeded		
4	Grassland	Modified grassland	0.433	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.87			0.00	0.00	0.43	0.87		Grassland to edge of ponds		
5	Woodland and forest	Other woodland; broadleaved	0.051	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (2=)	0.20			0.00	0.00	0.05	0.20		Small block to edge of ponds		
6	Lakes	Ponds (non-priority habitat)	0.406	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (2=)	1.62			0.00	0.00	0.41	1.62		Fishing pond		
7	Cropland	Cereal crops	4.412	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	8.82			0.00	0.00	4.41	8.82		Cereal fields bare in winter		
8	Grassland	Modified grassland	0.055	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.11			0.00	0.00	0.06	0.11		Narrow strip of horse paddock for access road		
9	Cropland	Cereal crops	2.45	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	4.90			0.00	0.00	2.45	4.90		Duck rearing unit sown with cereal crops in summer		
10	Cropland	Cereal crops	0.039	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.08			0.00	0.00	0.04	0.08		Ephemeral wet areas in fields		
11	Urban	Artificial unvegetated, unsealed surface	0.126	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00	0.126		0.00	0.00	0.00	0.00		Roads		
12	Grassland	Other neutral grassland	1.32	Medium	4	Poor	1	Formally identified in local strategy	High strategic significance	1.15	Same broad habitat or a higher distinctiveness habitat required (2=)	6.07			0.00	0.00	1.32	6.07		Horse Paddocks East, inside BHS		
13	Grassland	Other neutral grassland	5.705	Medium	4	Moderate	2	Formally identified in local strategy	High strategic significance	1.15	Same broad habitat or a higher distinctiveness habitat required (2=)	52.49			0.00	0.00	5.71	52.49		Wet Grassland East in BHS- Grazed		
14	Grassland	Other neutral grassland	0.003	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (2=)	0.01			0.00	0.00	0.00	0.01		Ephemeral wet area in fields		
15	Grassland	Modified grassland	0.295	Low	2	Poor	1	Formally identified in local strategy	High strategic significance	1.15	Same distinctiveness or better habitat required ≥	0.68			0.00	0.00	0.30	0.68		Grassland to edge of ponds in Grassland network		
16	Grassland	Other neutral grassland	0.369	Medium	4	Moderate	2	Formally identified in local strategy	High strategic significance	1.15	Same broad habitat or a higher distinctiveness habitat required (2=)	3.39			0.00	0.00	0.37	3.39		Horse Paddocks in Grassland network and BHS to East		
17	Grassland	Modified grassland	0.088	Low	2	Poor	1	Formally identified in local strategy	High strategic significance	1.15	Same distinctiveness or better habitat required ≥	0.20			0.00	0.00	0.09	0.20		Narrow strip of horse paddock for access road in Grassland network		
18	Cropland	Cereal crops	1.934	Low	2	Condition Assessment N/A	1	Formally identified in local strategy	High strategic significance	1.15	Same distinctiveness or better habitat required ≥	4.45			0.00	0.00	1.93	4.45		Ceral crop in BHS		
19																						
20																						
21																						
22																						
		Total habitat area	20.49									89.82	0.13	0.00	0.00	0.00	20.36	89.82				
		Site Area (Excluding area of Individual trees and Green walls)	20.49																			

	Existing hedgerow habitats			Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Ecological baseline	Retention category biodiversity value						Comments	
Baseline ref	Hedge number	Hedgerow type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier		Total hedgerow units	Length retained	Length enhanced	Units retained	Units enhanced	Length lost	Units lost	User comments	Consenting body comments
1	1	Native hedgerow	0.184	Low	2	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	1.10	0.184		1.10	0.00	0.00	0.00		
2	3	Native hedgerow - associated with bank or ditch	0.182	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	1.46	0.167		1.34	0.00	0.02	0.12		
3	4	Native hedgerow - associated with bank or ditch	0.091	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.73	0.091		0.73	0.00	0.00	0.00		
4	5	Native hedgerow	0.188	Low	2	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	1.13	0.188		1.13	0.00	0.00	0.00		
5																				
6																				
7																				
8																				
9																				
			0.65									4.42	0.63	0.00	4.30	0.00	0.02	0.12		

	Existing watercourse type		Distinctiveness		Condition		Strategic significance			Watercourse encroachment		Riparian encroachment		Required Action to Meet Trading Rules	Ecological baseline	Retention category biodiversity value						Bespoke compensation agreed for unacceptable losses
Baseline ref	Watercourse type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier	Extent of encroachment	Multiplier	Extent of encroachment for both banks	Multiplier		Total watercourse units	Length retained	Length enhanced	Units retained	Units enhanced	Length Lost	Units Lost	
1	Ditches	0.386	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	No Encroachment	1	Minor/ Minor	0.95	Same habitat required =	1.47		0.386	0.00	1.47	0.00	0.00	
2																						
3																						
4																						
5																						
6																						
		0.39													1.47	0.00	0.39	0.00	1.47	0.00	0.00	

APPENDIX B- METRICS TABLES – POST DEVELOPMENT

Post development/ post intervention habitats																							
Broad Habitat	Proposed habitat	Area (hectares)	Distinctiveness		Condition		Strategic significance			Temporal multiplier					Difficulty multipliers				Habitat units delivered	Comments	
			Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier	Standard time to target condition (years)	Habitat created in advance (years)	Delay in starting habitat creation (years)	Standard or adjusted time to target condition	Final time to target condition (years)	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied		User comments	Consenting body comments
Lakes	Ponds (non-priority habitat)	0.4915	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	3	0	1	Check details- Delay in starting habitat in required condition? ⚠	4	0.867	Low	Standard difficulty applied	Low	1	3.41	1- New ponds	
Lakes	Ponds (non-priority habitat)	0.4675	Medium	4	Moderate	2	Formally identified in local strategy	High strategic significance	1.15	3	0	1	Check details- Delay in starting habitat in required condition? ⚠	4	0.867	Low	Standard difficulty applied	Low	1	3.73	2- New ponds inside BHS	
Woodland and forest	Other woodland; broadleaved	0.7392	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	15	0	2	Check details- Delay in starting habitat in required condition? ⚠	17	0.546	Low	Standard difficulty applied	Low	1	3.23	3- New woodland outside BHS	
Woodland and forest	Other woodland; broadleaved	0.346	Medium	4	Moderate	2	Formally identified in local strategy	High strategic significance	1.15	15	0	1	Check details- Delay in starting habitat in required condition? ⚠	16	0.566	Low	Standard difficulty applied	Low	1	1.80	4- New woodland inside BHS	
Grassland	Modified grassland	0.261	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	4	Check details- Delay in starting habitat in required condition? ⚠	5	0.837	Low	Standard difficulty applied	Low	1	0.44	5- Amenity grassland outside BHS	
Grassland	Modified grassland	1.0427	Low	2	Poor	1	Formally identified in local strategy	High strategic significance	1.15	1	0	4	Check details- Delay in starting habitat in required condition? ⚠	5	0.837	Low	Standard difficulty applied	Low	1	2.01	6- Amenity grassland Inside BHS	
Heathland and shrub	Mixed scrub	0.6283	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0	1	Check details- Delay in starting habitat in required condition? ⚠	6	0.808	Low	Standard difficulty applied	Low	1	4.06	7- Scrub outside BHS	
Grassland	Other neutral grassland	0.7995	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	10	0	4	Check details- Delay in starting habitat in required condition? ⚠	14	0.607	Low	Standard difficulty applied	Low	1	5.83	8 - Wet grassland and scrapes outside Grassland Network	
Grassland	Other neutral grassland	1.222	Medium	4	Good	3	Formally identified in local strategy	High strategic significance	1.15	10	0	4	Check details- Delay in starting habitat in required condition? ⚠	14	0.607	Low	Standard difficulty applied	Low	1	10.24	9 - Wet grassland and scrapes inside Grassland Network	
Cropland	Cereal crops	1.236	Low	2	Condition Assessment N/A	1	Formally identified in local strategy	High strategic significance	1.15	1	0	1	Check details- Delay in starting habitat in required condition? ⚠	2	0.931	Low	Standard difficulty applied	Low	1	2.65	10- Cropland inside BHS	
Grassland	Other neutral grassland	6.5	Medium	4	Moderate	2	Formally identified in local strategy	High strategic significance	1.15	5	0	1	Check details- Delay in starting habitat in required condition? ⚠	6	0.808	Low	Standard difficulty applied	Low	1	48.29	11- Neutral grassland inside BHS and or Grassland Network	
Grassland	Other neutral grassland	2.308	Medium	4	Moderate	2	Formally identified in local strategy	High strategic significance	1.15	5	0	4	Check details- Delay in starting habitat in required condition? ⚠	9	0.726	Low	Standard difficulty applied	Low	1	15.41	12- Neutral grassland inside Grassland Network Reversion from arable	
Grassland	Other neutral grassland	0.283	Medium	4	Moderate	2	Formally identified in local strategy	High strategic significance	1.15	5	0	4	Check details- Delay in starting habitat in required condition? ⚠	9	0.726	Low	Standard difficulty applied	Low	1	1.89	13- Neutral grassland outside Grassland Network Reversion from arable	
Grassland	Modified grassland	2.211	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	1	Check details- Delay in starting habitat in required condition? ⚠	2	0.931	Low	Standard difficulty applied	Low	1	4.12	14- Horse paddock outside BHS and Grassland network	
Cropland	Cereal crops	1.225	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	4	Check details- Delay in starting habitat in required condition? ⚠	5	0.837	Low	Standard difficulty applied	Low	1	2.05	15- Ceral cropland outside BHS and Grassland network	
Urban	Developed land; sealed surface	0.5993	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	0	4	Standard time to target condition applied	4	0.867	Low	Standard difficulty applied	Medium	0.67	0.00	16-Roads and buildings	
Individual trees	Urban tree	0.6418	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	27	0	4	Check details- Delay in starting habitat in required condition? ⚠	30+	0.320	Low	Standard difficulty applied	Low	1	1.64	17 - Small and medium Urban trees	
Individual trees	Rural tree	0.3664	Medium	4	Good	3	Formally identified in local strategy	High strategic significance	1.15	30+	0	4	Check details- Delay in starting habitat in required condition? ⚠	30+	0.320	Low	Standard difficulty applied	Low	1	1.62	18- Medium Rural trees	
	Total habitat area	21.37																	Total Units	112.40			
	Site Area (Excluding area of Individual trees and Green walls)	20.36																					

		Proposed habitats		Distinctiveness		Condition		Strategic significance			Temporal multiplier						Difficulty risk multipliers				Hedge units delivered	Comments	
Baseline ref	New hedge number	Habitat type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier	Standard Time to target condition (years)	Habitat created in advance (years)	Delay in starting habitat creation (years)	Standard or adjusted time to target condition	Final time to target condition (years)	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied		User comments	Consenting body comments
1	6	Species-rich native hedgerow with trees	0.375	High	6	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	10	0	2	Check details- Delay in starting habitat in required condition? ⚠	12	0.652	Low	Standard difficulty applied	Low	1	2.93	Planted after area restored assumed 2 years	
2	7	Native hedgerow - associated with bank or ditch	0.05	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0	4	Check details- Delay in starting habitat in required condition? ⚠	9	0.726	Low	Standard difficulty applied	Low	1	0.29	Planted at end of scheme, assumed 4 years	
3	8	Species-rich native hedgerow with trees	0.375	High	6	Moderate	2	Formally identified in local strategy	High strategic significance	1.15	10	0	2	Check details- Delay in starting habitat in required condition? ⚠	12	0.652	Low	Standard difficulty applied	Low	1	3.37	Planted at end of scheme, assumed 2 years inside BHS	
4	9	Species-rich native hedgerow with trees	0.275	High	6	Moderate	2	Formally identified in local strategy	High strategic significance	1.15	10	0	2	Check details- Delay in starting habitat in required condition? ⚠	12	0.652	Low	Standard difficulty applied	Low	1	2.47	Planted at end of scheme, assumed 2 years inside BHS	
5	10	Species-rich native hedgerow with trees	0.159	High	6	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	10	0	4	Check details- Delay in starting habitat in required condition? ⚠	14	0.607	Low	Standard difficulty applied	Low	1	1.16	Planted at end of scheme, assumed 4 years	
6																							
7																							
8																							
			1.23																		10.23		

	Baseline habitats											Proposed Watercourse Type (Pre-populated can be overridden)	Change in distinctiveness and condition		Length (km)	Habitat distinctiveness		Habitat condition		Strategic significance			Temporal multiplier						Difficulty multipliers				Watercourse encroachment		Riparian encroachment		Watercourse units delivered	Comments	
Baseline ref	Baseline habitat	Length (km)	Baseline distinctiveness band	Baseline distinctiveness score	Baseline condition category	Baseline condition score	Baseline strategic significance category	Strategic significance	Baseline strategic significance Score	Required Action to Meet Trading Rules	Total units		Distinctiveness movement	Condition movement		Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier	Standard Time to target condition (years)	Habitat enhanced in advance (years)	Delay in starting habitat enhancement (years)	Standard or adjusted time to target condition	Final time to target condition (years)	Final Time to target multiplier	Standard difficulty of enhancement	Applied difficulty multiplier	Final difficulty of enhancement	Difficulty multiplier applied	Extent of encroachment	Multiplier	Extent of encroachment for both banks	Multiplier		User comments	Consenting body comments
1	Ditches	0.386	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same habitat required +	1.4668	Ditches	Medium - Medium	Poor - Moderate	0.386	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	4	0	4	Check details- Delay in starting habitat in required condition? ⚠	8	0.752	Medium	Standard difficulty applied	Medium	0.67	No Encroachment	1	Minor/ Minor	0.95	2.21	Enhanced at end of scheme, assumed 4 years	
															0.39																							2.21		

APPENDIX C – BASELINE DETAILED CONDITION ASSESSMENTS

This appendix presents the assessment of the post-development habitats against the condition sheets in the biodiversity metric 4 technical supplement published by Natural England, 2023. Any deviations from the published guidance is explained and justified.

Phase 1 Habitat	UK Hab Equivalent	Hedgerow Criteria Score										Condition Assessment	Notes
		A1	A2	B1	B2	C1	C2	D1	D2	E1*	E2*		
Intact Species-poor hedgerow	Native Hedgerow	P	P	P	P	F	P	P	F			Good	Some damage from proximity to fishing lakes/ cutting and compaction
Intact Species-poor hedgerow	Native hedgerow - associated with bank or ditch	P	P	P	P	F	F	P	F			Moderate	Damage from arable cultivation adjacent
Intact Species-poor hedgerow	Native hedgerow - associated with bank or ditch	P	P	P	P	F	F	P	F			Moderate	Damage from arable cultivation adjacent
Intact Species-poor hedgerow	Native Hedgerow	P	P	P	P	F	P	P	F			Good	Some damage from roadside location, heavily cut back

Key:
P – Criteria passed
F – Criteria failed
* - Application to Hedgerows with trees only

Appendix Table C1: Hedgerow Condition Assessment

UK Hab Equivalent	Condition Sheet	Other Habitat Criteria Score									Total Score	Condition Assessment	Notes
		C1	C2	C3	C4	C5	C6	C7	C8	C9			
Ditch	Ditches	F	F	F	P	P	F	F	P		3	Poor	Shallow, shaded, water quality poor due to runoff
Bare Ground	Urban	F	F	P							1	Poor	Bare ground
Other neutral grassland	GRASSLAND: Medium-Very High distinctiveness	F	F	P	P	F	F				2	Poor	Recently infilled/ cleared and now revegetating. Bare ground and poor diversity
Modified Grassland	GRASSLAND: Low distinctiveness	F	F	P	F	P	P	P			4	Poor	Short grazed horse paddocks fails Criteria A
Pond	Pond	F	F	P	F	P	F	F	F	P	3	Poor	Poor water quality and common carp present
Modified Grassland	GRASSLAND: Low distinctiveness	F	F	P	F	P	P	P			4	Poor	Short amenity grassland. Driven over by cars
Modified Grassland	GRASSLAND: Low distinctiveness	F	F	P	P	P	P	P			5	Poor	Horse paddock, species poor
Other neutral grassland	GRASSLAND: Medium-Very High distinctiveness	F	F	F	P	P	F				2	Poor	Former horse paddock, now long grass
Other neutral grassland	GRASSLAND: Medium-Very High distinctiveness	P	F	F	P	P	F				3	Moderate	Wet grassland, poor species diversity
Other neutral grassland	GRASSLAND: Medium-Very High distinctiveness	F	F	F	P	P	F				2	Poor	Small wet areas in fields, not holding water for more than 3months a year.

Key:
P – Criteria passed
F – Criteria failed

Appendix Table C2: Condition Assessment for Area Habitats

Phase 1 Habitat	UK Hab Equivalent	Condition Sheet	Other Habitat Criteria Score												Total Score	Condition Assessment	Notes
			C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13			
Semi-natural broadleaved woodland	Other woodland broadleaf	WOODLAND AND FOREST	2	3	3	2	2	1	2	2	2	2	1	1	2	25	Poor	Small block of woodland to edge of ponds

Key to woodland condition assessment:
3 (points) = Good
2 (points) = Moderate
1 (point) = Poor

Total score >32 – Good
Total score 26 – 32 – Moderate
Total score <26 – Poor

Appendix Table C3: Woodland Condition Assessment

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 4 technical supplement published by Natural England, 2023. Any deviations from the published guidance is explained and justified.

Phase 1 Habitat	UK Hab Equivalent	Hedgerow Criteria Score										Condition Assessment	Notes
		A1	A2	B1	B2	C1	C2	D1	D2	E1*	E2*		
Intact Species-poor hedgerow	Native Hedgerow	P	P	P	P	P	P	P	P	F	F	Moderate	Some damage likely to trees from livestock
Intact species-poor hedgerow with trees	Native Hedgerow with Trees	P	P	P	P	P	P	P	P	F	F	Moderate	Some damage likely to trees from livestock
Intact species-poor hedgerow with trees	Native Hedgerow with Trees	P	P	P	P	P	P	P	P	F	F	Moderate	Some damage likely to trees from livestock

Key:
P – Criteria passed
F – Criteria failed
* - Application to Hedgerows with trees only

Appendix Table D1: Hedgerow Condition Assessment

UK Hab Equivalent	Condition Sheet	Other Habitat Criteria Score									Total Score	Condition Assessment	Notes
		C1	C2	C3	C4	C5	C6	C7	C8	C9			
Ditch	Ditches	P	P	P	P	P	F	F	P		6	Moderate	Enhanced with buffer to side of ditch
Pond	Pond	P	F	P	F	P	P	F	P	P	6	Moderate	New ponds landscaped and planted
Other neutral grassland	GRASSLAND: Medium-Very High distinctiveness	P	P	P	P	P	F				5	Moderate	Managed to meet condition but unlikely to have 10+ species per m2
Other neutral grassland	GRASSLAND: Medium-Very High distinctiveness	F	F	P	P	P	F				4	Poor	Existing neutral grassland put back to poor quality grazing/ horse use as existing vegetation cover
Modified Grassland	GRASSLAND: Low distinctiveness	F	F	F	F	F	F	F			0	Poor	Amenity grassland
Scrub	Scrub	P	F	P	P	P					4	Moderate	Planted and managed to meet condition
Rural trees	Rural Trees	P	P	F	P	P	P				5	Good	Trees in grassland areas
Urban trees	Urban Trees	P	P	F	F	P	P				4	Moderate	Trees in lodge park and to roadside

Key:
P – Criteria passed
F – Criteria failed

Appendix Table D2: Condition Assessment for Area Habitats

Phase 1 Habitat	UK Hab Equivalent	Condition Sheet	Other Habitat Criteria Score													Total Score	Condition Assessment	Notes
			C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13			
Semi-natural broadleaved woodland	Other woodland broadleaf	WOODLAND AND FOREST	2	3	3	3	3	2	2	3	2	2	1	1	3	30	Moderate	New planting managed to meet condition

Key to woodland condition assessment:
3 (points) = Good
2 (points) = Moderate
1 (point) = Poor

Total score >32 – Good
Total score 26 – 32 – Moderate
Total score <26 – Poor

Appendix Table D3: Woodland Condition Assessment