Biodiversity Impact Assessment Summary

Warwickshire County Council

Site name: Land off Berry Hill Road, Adderbury
Planning reference number: to be copied from the BIA sheet

|	Habitat Area (ha)	Hedgerow impact (km)	Connectivity Features (km)	Habitat Biodiversity Value	Hedgerow Biodiversity Value	Connectivity Biodiversity Value
Existing						
Onsite Biodiversity Impact	3.88	0.00	0.00	8.69	8.88	0.00
Indirect Biodiversity Impact	0.00	0.00	0.00	0.00	0.00	0.00
Total habitat / linear features impacted	**3.88**	**0.00**	**0.00**	**8.69**	**8.88**	**0.00**
Retained / Created / Enhanced						
Onsite biodiversity retained	0.12	0.00	0.00	0.96	8.88	0.00
Onsite Creation	3.88	0.30	0.00	8.22	0.76	0.00
Biodiversity retained and enhanced	0.00	0.00	0.00	0.00	0.00	0.00
Total biodiversity retained/enhanced	**4.00**	**0.30**	**0.00**	**9.18**	**9.64**	**0.00**
Trading Down	n/a	n/a	n/a	0.00	-0.50	0.00
Biodiversity Impact	n/a	n/a	n/a	0.49	0.26	0.00

Habitat Impacts	Loss	Gain	Impact	%age losses	Compensatory Unit loss	Indicative Offset (ha)	WCC Offset units	WCC Indicative Offset Contribution
Woodland Habitat	0.16	1.02	0.86					
Grassland Habitat	7.18	6.27	-0.91					
Wetland Habitat	0.00	0.00	0.00					
Other Habitat (incl. Built Env)	0.39	0.93	0.54					
Total	7.73	8.22	0.49	0.00	0.00	0.00	0.00	£0
		Trading down	0.00					
			0.49					

Hedgerow Impacts	Loss	Gain	Trading down	Impact	Unit loss	Indicative Offset (km)	WCC Offset units	WCC Offset Contribution
Hedgerow	0.00	0.76	-0.50	0.26				

SUMMARY

This development will result in 0.49 Habitat Biodiversity Units gain; 0.26 Hedgerow Units gain and 0 Connectivity Biodivesity Units loss

ECOSYSTEM SERVICES ANALYSIS

Provisioning Services

Cultural Services

Regulating Services
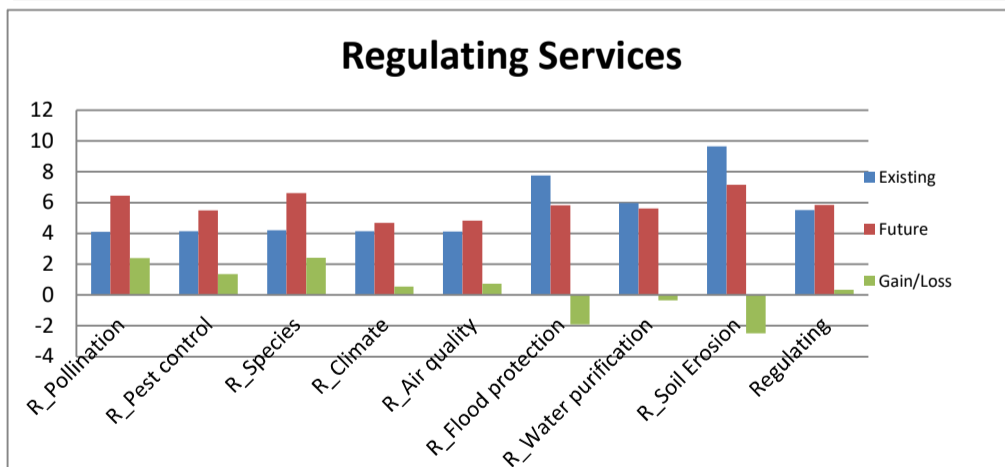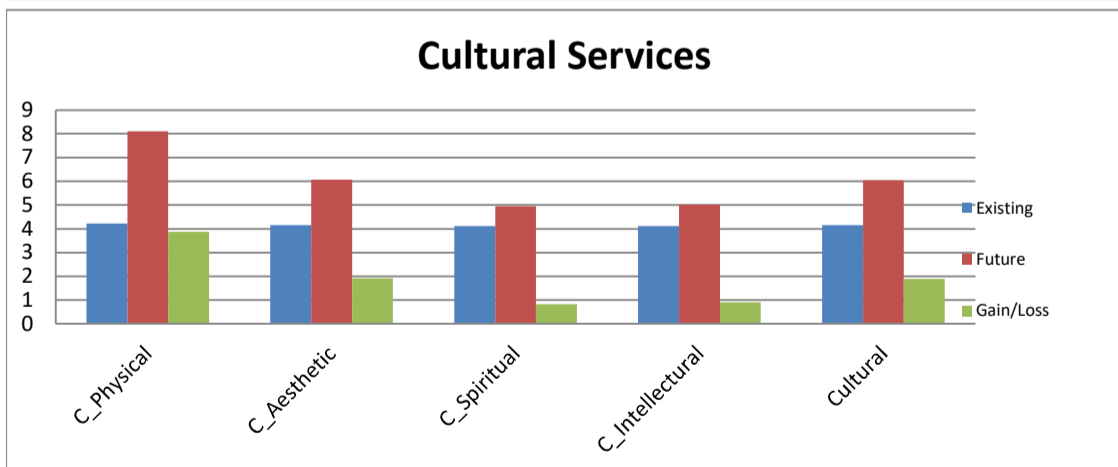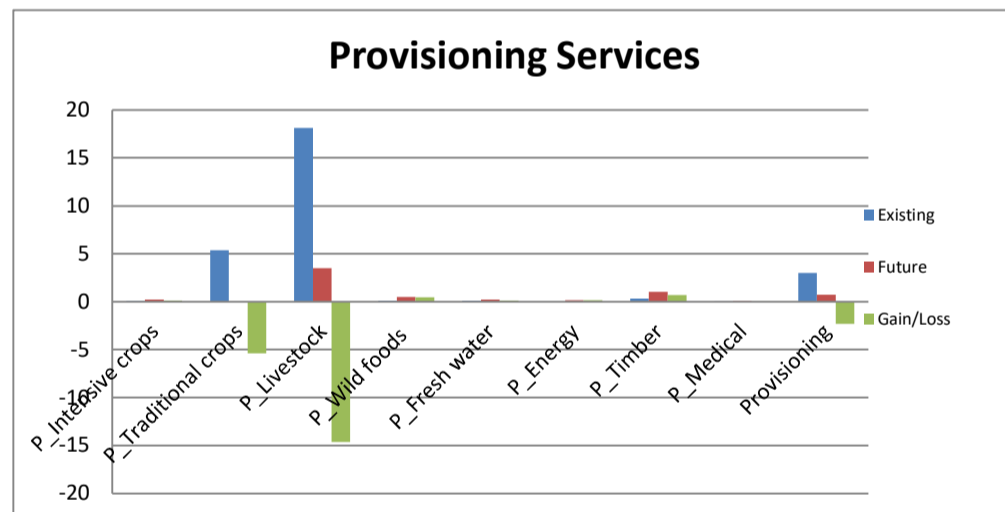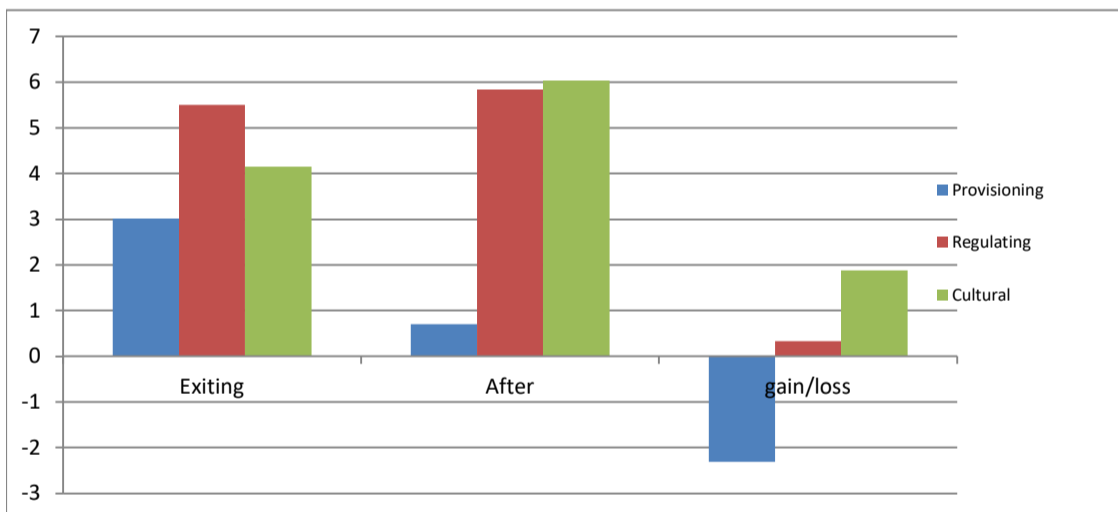
For any questions with regard to biodiversity impact and this development please contact Warwickshire County Council Ecological Services:
email: planningecology@warwickshire.gov.uk   or   telephone 01926 418060

Warwickshire, Coventry & Solihull - Habitat Impact Assessment Calculator

KEY	
	No action required
	Enter value
	Drop-down menu
	Calculation
	Automatic lookup
	Automatic Condition setting
	Result

Local Planning Authority:	Other
Site name:	Land off Berry Hill Road, Adderbury
Planning application reference number:	
Assessor:	RY
Date:	16/01/2023

Please fill in both tables
Please do not edit the formulae or structure
To condense the form for display hide vacant rows, do not delete them
If additional rows are required, or to provide feedback on the calculator please contact WCC Ecological Services 01926 418060

Habitat Biodiversity Value

T. Note	code	Phase 1 habitat description	Habitat area (ha)	Distinctiveness	Score A	Condition	Score B	Area (ha) C	Existing value A x B x C = D	Area (ha) E	Existing value A x B x E = F	Area (ha) G	Existing value A x B x G = H	Comment
		Direct impacts and retained habitats												
	n/a	Built Environment: Buildings/hardstanding	0.11	none	0	Poor	1					0.11	0.00	Existing buildings and hardstanding.
	J4	Other: Bare ground	0.09	Low	2	Poor	1					0.09	0.18	Existing patches of bare ground.
	B4	Grassland: Improved grassland	3.59	Low	2	Poor	1					3.59	7.18	Existing grazed, improved grassland.
	C31	Other: Tall ruderal	0.07	Medium-Low	3	Poor	1					0.07	0.21	Existing tall ruderal.
	A3	Woodland: Scattered trees	0.14	Medium	4	Moderate	2	0.12	0.96			0.02	0.16	Existing scattered trees. One lost, with eight retained.

	Total	4.00			Total	0.12	0.96	0.00	0.00	3.88	7.73 J

	∑D + ∑F + ∑H
Site habitat biodiversity value	8.69

Indirect Negative Impacts

Before/after impact	Including off site habitats	K					Value of loss from indirect impacts K x A x B = Li, Lii	Li - Lii		Comment
Before										
After										
Before										
After										
Before										
After										
Before										
After										
Before										
After										

	Total	0.00					0.00 M		HIS = J + M	

Habitat Impact Score (HIS)	7.73

Proposed habitats on site (Onsite mitigation)

T. Note	code	Phase 1 habitat description	Area (ha) N	Distinctiveness	Score O	Condition	Score P	Time (years)	Score Q	Difficulty	Score R	Habitat biodiversity value (N x O x P) / Q / R	Comment
		Habitat Creation											
	n/a	Built Environment: Buildings/hardstanding	1.34	none	0	Poor	1	3 Years	1.1	Low	1	0.00	Proposed buildings and hardstanding.
	n/a	Built Environment: Gardens (lawn and planting)	0.46	Low	2	Poor	1	3 Years	1.1	Low	1	0.84	Proposed residential gardens.
	J14	Other: Introduced shrub	0.05	Low	2	Poor	1	3 Years	1.1	Low	1	0.09	Proposed introduced shrub.
	J12	Grassland: Amenity grassland	0.11	Low	2	Poor	1	3 Years	1.1	Low	1	0.20	Proposed amenity grassland comprising amenity turves.
	B22	Grassland: Semi-improved neutral grassland	0.16	Medium	4	Moderate	2	3 Years	1.1	Medium	1.5	0.78	Proposed EG10 tussock grass mixture.
	J12	Grassland: Amenity grassland	0.82	Low	2	Poor	1	3 Years	1.1	Low	1	1.49	Proposed EG22 strong lawn grass mixture.
	B22	Grassland: Semi-improved neutral grassland	0.19	Medium	4	Moderate	2	3 Years	1.1	Medium	1.5	0.92	Proposed EH1 hedgerow mixture.
	B22	Grassland: Semi-improved neutral grassland	0.37	Medium	4	Good	3	3 Years	1.1	Medium	1.5	2.69	Proposed EM2 standard purpose general meadow mixture.
	B22	Grassland: Semi-improved neutral grassland	0.04	Medium	4	Moderate	2	3 Years	1.1	Medium	1.5	0.19	Proposed EM8 meadow mixture for wetlands.
	A112	Woodland: Broad-leaved plantation	0.11	Medium	4	Moderate	2	25 years	2.4	Medium	1.5	0.24	Proposed native woodland and understorey planting in north of development.
	A3	Woodland: Scattered trees	0.18	Medium	4	Moderate	2	25 years	2.4	Low	1	0.60	Proposed scattered trees throughout development.
	A21	Woodland: Dense continuous scrub	0.05	Medium-Low	3	Moderate	2	15 years	1.7	Low	1	0.18	Proposed species-rich thicket mix along western boundary of development.

	Total	3.88										

		Habitat Enhancement						Existing value S (= F)				((NxOxP)-S)/Q/R	
B													

	Total	0.00										

Trading down correction value	0.00
Habitat Mitigation Score (HMS)	8.22

HBIS = HMS - HIS	
Habitat Biodiversity Impact Score	0.49 Gain
Percentage of biodiversity impact loss	

	Loss	Gain	Impact
Woodland Habitat	0.16	1.02	0.86
Grassland Habitat	7.18	6.27	-0.91
Wetland Habitat	0.00	0.00	0.00
Other Habitat (including Built Environment)	0.39	0.93	0.54
Total	7.73	8.22	0.49
		Trading down	0.00
			0.49

Warwickshire, Coventry & Solihull - Hedge Impact Assessment Calculator

KEY
	No action required
	Enter value
	Drop-down menu
	Calculation
	Automatic lookup
	Result

This sheet calculates the impacts to hedges and lines of trees in and around the site.

These units are not transferable as compensation for either the Habitat or Connectivity Impact Assessment scores.

Existing hedgerow features on site

T Note code	Hedgerow habitat description	Feature length (km)	Distinctiveness	Score	A1	A2	B1	B2	C1	C3	D1	D2	Condition Score	Length (km)	Existing value	Length (km)	Existing value	Length (km)	Existing value	Comment
	Direct impacts and retained features			A										C	A×B×C×D	E	A×B×E×F	G	A×B×G×H	
n/a	Hedge; species rich hedge with trees	0.74	High	6	Pass	Fail	Fail	Pass	Fail	Pass	Pass	Pass	2			0.74	8.88			Hedgerows along northern, eastern and southern boundaries
	Total	0.74												Totals	0.00	0.00	0.74	8.88	0.00	0.00	

Site Hedge Biodiversity Value $=$ SD + SV + SH

Indirect Negative Impacts

Before/after impact		K												Value of loss from indirect impacts $K = A×B$ $= L1, L2$	$L1 - L2$	
Before																
After																
Before																
After																
Before																
After																
Before																
After																
	Total															

Hedge Impact Score (HIS)

Proposed hedge features on site (Onsite mitigation)

T Note code	Phase 1 habitat description	Length (km)	Distinctiveness	Score	A1	A2	B1	B2	C1	C3	D1	D2	Condition Score	Time (years)	Score	Difficulty	Score	Linear biodiversity value	Comment
	Hedgerow Creation			N											O		P	(N×O×P) / G	
n/a	Hedge; species rich hedge	0.50	Medium	4	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	3	10 years	1.4	Low	1	0.25	Mixed native hedgerow in south-east of development
n/a	Hedge; non_species rich hedge	0.35	Low	2	Fail	Fail	Pass	Pass	Pass	Fail	Pass	Pass	2	5 years	1.2	Low	1	0.15	Sections of hornbeam hedgerow throughout development
n/a	Hedge; non_species rich hedge	0.25	Low	2	Fail	Fail	Pass	Pass	Fail	Fail	Pass	Pass	1	5 years	1.2	Low	1	0.40	Ornamental non-native hedgerow throughout development
	Total																		

Hedgerow Enhancement

														Existing value E = ?				(N×O×P) / G / (S) B	
	Total															

	Trading down correction value
	Hedge Mitigation Score (HMS)

	HBIS = HMS
	HIS
Hedge Biodiversity Impact Score	
Percentage of linear impact loss	

KEY
	No action required
	Action required
	Drop-down menu
	Calculation
	Automatic lookup
	Overall Gain
	Overall Loss

Warwickshire Coventry and Solihull - Connectivity Impact Assessment [optional]

Please fill in both tables

KEY

	No action required
	Enter value
	Drop-down menu
	Calculation
	Automatic lookup
	Result

Connectivity Features
This sheet gives and indication as to whether the development will enhance connectivity through or around the site.

These units are not transferrable as compensation for either the Habitat or Hedgerow Impact Assessment scores.

Please do not edit the formulae or structure
To condense the form for display hide vacant rows, do not delete them
If additional rows are required,
or to provide feedback on the calculator
please contact WCC Ecological Services

Table 1

T. Note	code	Existing Connectivity features on site — Phase 1 habitat description	Feature length (km)	Connectivity distinctiveness — Distinctiveness	Score A	Connectivity condition — Condition	Score B	Connectivity features to be retained with no change within development — Length (km) C	Existing value A x B x C = D	Connectivity features to be retained and enhanced within development — Length (km) E	Existing value A x B x E = F	Connectivity features to be lost within development — Length (km) G	Existing value A x B x G = H	Comment
		Direct Impacts and retained features												
		Total	0.00			Total		0.00	0.00	0.00	0.00	0.00	0.00 J	

Site Connectivity Biodiversity Value — ΣD + ΣF + ΣH = 0.00

Before/after impact	Indirect Negative Impacts		K					Value of loss from indirect impacts K x A x B = Li, Lii	Li - Lii					
Before														
After														
Before														
After														
Before														
After														
Before														
After														
Before														
After														
Total			0.00					0.00 M						

Connectivity Impact Score (CIS) — CIS = J + M — 0.00

Table 2

T. Note	code	Proposed linear features on site (Onsite mitigation) — Phase 1 habitat description	Length (km) N	Target Connectivity distinctiveness — Distinctiveness	Score O	Target Connectivity condition — Condition	Score P	Time till target condition — Time (years)	Score Q	Difficulty of creation / restoration — Difficulty	Score R	Connectivity biodiversity value (N x O x P) / Q / R	Comment
		Connectivity Creation											
		Total	0.00										
		Connectivity Enhancement										Existing value S (= F) / ((N x O x P) - S) / Q / R	
		Total	0.00										

Trading down correction value — 0.00
Connectivity Mitigation Score (CMS) — 0.00
Connectivity Biodiversity Impact Score — CBIS = CMS - CIS — 0.00
Percentage of linear impact loss

Habitat trading down correction calculator

Existing Site

Existing habitat	Area of habitat impact	Distinctiveness	High distinctiveness habitat loss biodiversity value	Medium-High distinctiveness habitat loss biodiversity value	Medium distinctiveness habitat loss biodiversity value	Medium-Low distinctiveness habitat loss biodiversity value
Direct impacts						
Built Environment: Buildings/hardstanding	0.11	none	0.00	0.00	0.00	0.00
Other: Bare ground	0.09	Low	0.00	0.00	0.00	0.00
Grassland: Improved grassland	3.59	Low	0.00	0.00	0.00	0.00
Other: Tall ruderal	0.07	Medium-Low	0.00	0.00	0.00	0.21
Woodland: Scattered trees	0.02	Medium	0.00	0.00	0.16	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
Indirect impacts						
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
TOTAL	3.88		0.00	0.00	0.16	0.21

Proposed Site

Proposed habitat creation	Area of habitat creation	Distinctiveness	High distinctiveness proposed biodiversity value	Medium-High distinctiveness proposed biodiversity value	Medium distinctiveness proposed biodiversity value	Medium-Low distinctiveness proposed biodiversity value
Built Environment: Buildings/hardstanding	1.34	none	0.00	0.00	0.00	0.00
Built Environment: Gardens (lawn and planting)	0.46	Low	0.00	0.00	0.00	0.00
Other: Introduced shrub	0.05	Low	0.00	0.00	0.00	0.00
Grassland: Amenity grassland	0.11	Low	0.00	0.00	0.00	0.00
Grassland: Semi-improved neutral grassland	0.16	Medium	0.00	0.00	0.78	0.00
Grassland: Amenity grassland	0.82	Low	0.00	0.00	0.00	0.00
Grassland: Semi-improved neutral grassland	0.19	Medium	0.00	0.00	0.92	0.00
Grassland: Semi-improved neutral grassland	0.37	Medium	0.00	0.00	2.69	0.00
Grassland: Semi-improved neutral grassland	0.04	Medium	0.00	0.00	0.19	0.00
Woodland: Broad-leaved plantation	0.11	Medium	0.00	0.00	0.24	0.00
Woodland: Scattered trees	0.18	Medium	0.00	0.00	0.60	0.00
Woodland: Dense continuous scrub	0.05	Medium-Low	0.00	0.00	0.00	0.18
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
Proposed habitat enhancement	Area	Distinctiveness	High	Medium-High	Medium	Medium-Low
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
TOTAL	3.88		0.00	0.00	5.42	0.18

Trading Down Correction

	High	Medium-High	Medium	Medium-Low
Value of existing habitat loss per distinctiveness	0.00	0.00	0.16	0.21
Value of created habitats per distinctiveness	0.00	0.00	5.42	0.18
Would this result in trading down habitats?	Never	No	No	No
If no, value each distinctiveness still requiring compensation	0	0	0	0
Surplus gain to be carried over to compensate loss of lower habitats (rolls over)	0	0	5.26	5.23
Trading down correction value	n/a	0	0	0

This calculator assess whether there is any down trading in habitats value. E.g. loss of high distinctiveness habitat cannot be compensated for by surpluss medium mitigation. It ca value which enters into the primary calculator to take this into account. Such that the full level of high habitat loss compensation is required. However if additional medium gain is g value of the high loss, this surplus is still be taken into account with on site gain.

CAUTION - Destruction of habitats of high distinctiveness, e.g. lowland meadow or ancient woodland, may be against local policy. Has the mitigation hierarchy been followed, can impact to these habitats be avoided?
Any unavoidable loss of habitats of high distinctiveness must be replaced like-for-like.

Hedgerow trading down correction calculator

Existing Site

Existing Hedgerow features	length of loss (km)	Distinctiveness	High distinctiveness Hedgerow loss biodiversity value	Medium-High distinctiveness Hedgerow loss biodiversity value	Medium distinctiveness Hedgerow loss biodiversity value	Medium-Low distinctiveness Hedgerow loss biodiversity value	Low distinctiveness Hedgerow loss biodiversity value
Direct impacts							
Hedges: species rich hedge with trees	0.74	High		0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
Indirect impacts							
-	-		0.00	0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00	0.00
TOTAL	0.74		0.00	0.00	0.00	0.00	0.00

Proposed Site

Proposed hedgerow creation	Length of feature (km)	Distinctiveness	High distinctiveness proposed Hedgerow biodiversity value	Medium-High distinctiveness proposed Hedgerow biodiversity value	Medium distinctiveness proposed Hedgerow biodiversity value	Medium-Low distinctiveness proposed Hedgerow biodiversity value	Low distinctiveness proposed Hedgerow biodiversity value
Hedges: species rich hedge	0.03	Medium	0.00	0.00	0.26	0.00	0.00
Hedges: non_species rich hedge	0.03	Low	0.00	0.00	0.00	0.00	0.10
Hedges: non_species rich hedge	0.24	Low	0.00	0.00	0.00	0.00	0.40
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00

Proposed hedgerow enhancement	Length	Distinctiveness	High	Medium-High	Medium	Medium-Low	Low
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
TOTAL	0.30		0.00	0.00	0.26	0.00	0.50

Hedgerow trading down correction

	High	Medium-High	Medium	Medium-Low	Low	
Value of existing habitat loss per distinctiveness	0.00	0.00	0.00	0.00	0.00	
Value of created habitats per distinctiveness	0.00	0.00	0.26	0.00	0.50	
Would this result in trading down habitats?	Never	No	No	No	Yes	
If no, value each distinctiveness still requiring compensation	0	0	0	0	0	
Surplus gain to be carried over to compensate loss of lower habitats (rolls over)	0	0	0.26	0.26	n/a	Total
Trading down correction value	n/a	0	0	0	-0.50	**-0.50**

This calculator assess whether there is any down trading in Hedgerow habitats. E.g. loss of high distinctiveness habitat and surplus creation of medium or low habitats. It calculates a correction value which enters into the primary calculator to take this into account. Such that the full level of high habitat loss compensation is required. However if additional medium gain is generated above the value of the high loss, this surplus is still be taken into account with on site gain.

CAUTION - Destruction of each habitat of medium distinctiveness and above should be mitigated for with creation/restoration of a similar habitat. Trading up of habitat type is encouraged.

Linear trading down correction calculator

Existing Site

Existing linear features	length of loss (km)	Distinctiveness	High distinctiveness linear loss biodiversity value	Medium-High distinctiveness linear loss biodiversity value	Medium distinctiveness linear loss biodiversity value	Medium-Low distinctiveness linear loss biodiversity value	Low distinctiveness linear loss biodiversity value
Direct impacts							
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
Indirect impacts							
-	-		0.00	0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00	0.00
TOTAL	0.00		0.00	0.00	0.00	0.00	0.00

Proposed Site

Proposed linear creation	Length of feature (km)	Distinctiveness	High distinctiveness proposed linear biodiversity value	Medium-High distinctiveness proposed linear biodiversity value	Medium distinctiveness proposed linear biodiversity value	Medium-Low distinctiveness proposed linear biodiversity value	Low distinctiveness proposed linear biodiversity value
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
Proposed linear enhancement	Length	Distinctiveness	High	Medium-High	Medium	Medium-Low	Low
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
TOTAL	0.00		0.00	0.00	0.00	0.00	0.00

Linear trading down correction	High	Medium-High	Medium	Medium-Low	Low	
Value of existing habitat loss per distinctiveness	0.00	0.00	0.00	0.00	0.00	
Value of created habitats per distinctiveness	0.00	0.00	0.00	0.00	0.00	
Would this result in trading down habitats?	Never	No	No	No	No	
If no, value each distinctiveness still requiring compensation	0	0	0	0	0.00	
Surplus gain to be carried over to compensate loss of lower habitats (rolls over)	0	0	0	0	n/a	Total
Trading down correction value	n/a	0	0	0	0	0.00

This calculator assess whether there is any down trading in linear habitats. E.g. loss of high distinctiveness habitat and surplus creation of medium or low habitats. It calculates a correction value which enters into the primary calculator to take this into account. Such that the full level of high habitat loss compensation is required. However if additional medium gain is generated above the value of the high loss, this surplus is still be taken into account with on site gain.

CAUTION - Destruction of each habitat of medium distinctiveness and above should be mitigated for with creation/restoration of a similar habitat. Trading up of habitat type is encouraged.
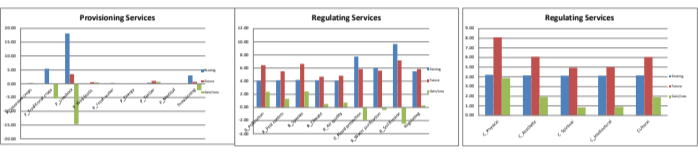
Phase 1 Habitat Type	Phase 1 Habitat Codes	Distinctiveness	Difficulty of creation	Preset Time to Target Condition (Moderate)	Preset Time to Target Condition (Good)	Difficulty of restoration	Preset Time to Target Condition (Moderate)	Preset Time to Target Condition (Good)	UK Priority Habitat / Habitat of Principal Importance	LBAP Priority Habitat	NVC	Habitat Definition	Notes	Condition Assessment	Habitat creation/restoration timescale
Built Environment: Buildings/hardstanding	n/a	none	0	Low	1	n/a	n/a	Low	1	n/a	n/a	Not a priority habitat				Classify as poor condition	
Built Environment: Gardens (lawn and planting)	n/a	Low	1	Low	1	n/a	n/a	Low	1	n/a	n/a	Not a priority habitat				Classify as poor condition	0.5 years
Woodland: Dry lowland semi-natural woodland	A111	High	8	Low	-	n/a	n/a	Low	1	W_in_P	W_in_P	Lowland mixed deciduous woodland	Woodland			Use FEP T3B condition assessment	
Woodland: Broad-leaved plantation	A112	Medium	4	Medium	1.5	32+ years		Low	1	W_in_P	W_in_P	Not a priority habitat	Not a priority habitat			Use FEP T3B condition assessment	
Woodland: Coniferous semi-natural woodland	A121	Medium	4	n/a		n/a	n/a	Low	1				W13, W18				n/a
Woodland: Coniferous plantation	A122	Low	2	Medium	1.5	n/a	n/a	Low	1			Not a priority habitat					n/a
Woodland: Mixed semi-natural woodland	A131	Medium	4	-		n/a	n/a	Low	1	W_in_P	W_in_P	Lowland mixed deciduous woodland	Woodland			Use FEP T3B condition assessment	
Woodland: Mixed plantation	A132	Low	2	Medium	1.5	32+ years		Low	1	W_in_P	W_in_P	Not a priority habitat	Not a priority habitat			Use FEP T3B condition assessment	
Woodland: Wet woodland	n/a	High	8	Medium	1.5	32+ years		Medium	1.5	W_in_P	W_in_P	Wet woodland	Woodland	W1 - W7			Use FEP T3B condition assessment	
Woodland: Dense continuous scrub	A21	Medium-Low	3	Low	1	10 years	15 years	Low	1	W_in_P	W_in_P	Not a priority habitat	Not a priority habitat	W21-24			Use condition assessment V05 for scrub, even if the scrub does not meet the FEP definition	
Woodland: Scattered scrub	A22	Medium	4	Low	1	10 years	15 years	Low	1	W_in_P	W_in_P	Not a priority habitat	Not a priority habitat	W21-24			Use condition assessment V05 for scrub, even if the scrub does not meet the FEP definition	
Woodland: Scattered trees	A3	Medium	4	Low	1	32+ years		Low	1	W_in_P	W_in_P	Not a priority habitat	Not a priority habitat					
Woodland: Broad-leaved parkland	A31	High	8	Medium	1.5	n/a		Low	1	W_in_P	W_in_P	Wood-pasture and parkland	Old parkland & veteran trees	Range of NVC types			Use FEP T3B condition assessment	
Woodland: Coniferous parkland	A32	Medium	4	Medium	1.5	n/a		Low	1	W_in_P	W_in_P	Not a priority habitat						
Woodland: Recently felled woodland	A4	Low	2	Low	-	n/a	-	n/a		Not a priority habitat	Not a priority habitat					Classify as poor condition	
Woodland: Orchard	A5	High	8	Low	1	W_in_P	W_in_P	Low	1	W_in_P	W_in_P	Traditional orchard	Orchards	Range of NVC types			Use FEP T10 or PTES (Peoples Trust for Endangered Species) condition assessment (see PTES/NE Project Report NECR077)	
Grassland: Unimproved acidic grassland	B11	High	8	Medium	1.5	n/a	n/a	Low	1	W_in_P	W_in_P	Lowland dry acid grassland	Acid grassland	U1-U4			Use FEP G05 condition assessment	
Grassland: Semi-improved acidic grassland	B12	Medium-High	5	Medium	1.5	15 years	W_in_P	Low	1	W_in_P	W_in_P	Lowland dry acid grassland	Acid grassland	U1-U4			Use FEP G05 condition assessment	
Grassland: Unimproved neutral grassland	B21	High	8	Medium	1.5	n/a	n/a	Low	1	W_in_P	W_in_P	Lowland meadow	Neutral grassland	MG4, MG5, MG8			Use FEP G06 condition assessment	
Grassland: Semi-improved neutral grassland	B22	Medium	4	Medium	1.5	15 years		Low	1	W_in_P	W_in_P	Lowland meadow	Neutral grassland	MG1, MG6, MG4, MG5			Use FEP G06 condition assessment	
Grassland: Unimproved calcareous grassland	B31	High	8	Medium	1.5	n/a		Low	1	W_in_P	W_in_P	Lowland calcareous grassland	Calcareous grassland	CG2, CG5			Use FEP G04 condition assessment	
Grassland: Semi-improved calcareous grassland	B32	Medium-High	5	Medium	1.5	15 years	W_in_P	Low	1	W_in_P	W_in_P	Lowland calcareous grassland	Calcareous grassland	CG2, CG5			Use FEP G04 condition assessment	
Grassland: Poor semi-improved grassland	B6	Medium-Low	3	Medium	1.5	n/a		Low	1			Not a priority habitat	Some examples of MG6				Classify as poor condition	
Grassland: Improved grassland	B4	Low	2	Low	-	n/a	n/a	Low	1			Not a priority habitat	MG6a, MG7				Use FEP G07 condition assessment	
Grassland: Marsh / Marshy grassland	B5	High	8	High	3	10 years	W_in_P	Medium	1.5	W_in_P	W_in_P	Coastal and floodplain grazing marsh / Purple moor-grass and rush pasture	Lowland meadow	MG8-10, MG12, M22-28			Use FEP G06 & G05 condition assessment	
Grassland: Dry heath / Acidic grassland mosaic	D9	High	8	Medium	1.5	W_in_P	W_in_P	Medium	1.5	W_in_P	W_in_P	Lowland heathland / Lowland dry acid grassland	Lowland heathland				Use FEP species features, including SP02 uncommon vascular plants.	
Grassland: Set-aside / Arable field margins	J113	High	6	Low	1	W_in_P	W_in_P	Low	1	W_in_P	W_in_P	Arable field margins	Arable field margins				Classify as poor condition	
Grassland: Amenity grassland	J12	Low	2	Low	1	n/a	n/a	Low	1			Not a priority habitat	Various grassland forms but mostly MG6, MG7				Classify as poor condition	
Wetland: Standing water	G1	High	8	Medium	1.5	W_in_P	W_in_P	Medium	1.5	W_in_P	W_in_P	Ponds	Ponds				Use FEP W07 condition assessment	
Wetland: Running water	G2	High	8	Medium	1.5	W_in_P	W_in_P	Medium	1.5	W_in_P	W_in_P	Rivers & streams	Rivers & streams				No FEP condition assessment. See rest colour	
Wetland: Reedbed	F1	High	8	Low	1	W_in_P	W_in_P	low	1	W_in_P	W_in_P	Reedbeds	Reedbeds				Use FEP W08 condition assessment	
Wetland: Sphagnum Bog	E11	High	8	Very High	10	n/a	n/a	High	3	-	-	Blanket bog	Lowland raised bog	M1-3, M17-20			Habitat not found in Warwickshire	n/a
Wetland: Acid/neutral flush	E21	High	8	High	3	W_in_P	W_in_P	Medium	1.5	W_in_P	W_in_P	Lowland fens	Fen & swamp				Use FEP W04 condition assessment	
Wetland: Basin Mire	E32	High	8	High	3	n/a		Medium	1.5			Lowland fens	Various mire communities				Habitat not found in Warwickshire	n/a
Wetland: Swamp	F1	High	8	Medium	1.5	W_in_P	W_in_P	Medium	1.5	W_in_P	W_in_P	Lowland fens	Fen & swamp				Use FEP W04 condition assessment	
Wetland: Inundation vegetation	F22	High	8	Low	1	W_in_P	W_in_P	Low	1	W_in_P	W_in_P			MG11, MG13, CH38-38				
Other: Arable	J11	Low	2	Low	1	n/a	-	n/a		Not a priority habitat	Not a priority habitat						0.5 years
Other: Continuous bracken	C11	Low	2	Low	1	W_in_P	W_in_P	Low	1			Not a priority habitat	W25				
Other: Tall ruderal	C31	Medium-Low	3	Low	1	W_in_P	W_in_P	Low	1			Not a priority habitat	OV24-27				Classify as poor condition	
Other: Non-ruderal	C32	Medium	4	Low	1	W_in_P	W_in_P	Low	1			Not a priority habitat					Classify as poor condition	
Other: Ephemeral/short perennial	J13	Low	2	Low	1	W_in_P	W_in_P	Low	1			Not a priority habitat					Classify as poor condition	
Other: Allotments	J112	Low	2	Low	1	n/a	n/a	Low	1			Not a priority habitat	Allotments				Classify as poor condition	
Other: Quarry	I21	Low	2	Low	1	n/a	n/a	Low	1			Not a priority habitat	Quarries & pits				Classify as poor condition	
Other: Spoil	I22	Low	2	Low	1	n/a	n/a	Low	1			Not a priority habitat	Spoil				Classify as poor condition	
Other: Refuse tip	I24	Low	2	Low	1	n/a	n/a	Low	1			Not a priority habitat	Refuse tip				Classify as poor condition	
Other: Introduced shrub	J14	Low	2	Low	1	n/a	n/a	Low	1			Not a priority habitat	Not a priority habitat				Classify as poor condition	0.5 years
Other: Bare ground	J4	Low	2	Low	1	n/a	n/a	Low	1								

VALUE

Code		Distinctiveness	Area	Value	Woodland High	Medium-High	Medium	Medium-Low	Low	Grassland High	Medium-High	Medium	Medium-Low	Low	Wetland High	Medium-High	Medium	Medium-Low	Low	Other (including Built Gardens) High	Medium-High	Medium	Medium-Low	Low	Built Environment High	Medium-High	Medium	Medium-Low	Low
			4.00	7.73																									
n/a	Built Environment: Buildings/hardstanding	none	0.11	0.00																									
J4	Other: Bare ground	Low	0.09	0.18																				0.18					
B4	Grassland: Improved grassland	Low	3.59	7.18										7.18															
C31	Other: Tall ruderal	Medium-Low	0.07	0.21																			0.21						
A3	Woodland: Scattered trees	Medium	0.14	0.16			0.16																						
		0		0.00																									
		0		0.00																									
		0		0.00																									
		0		0.00																									
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					0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	7.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.18	0.00	0.00	0.00	0.00	0.00	7.73

Indirect Impacts				Woodland High	Medium-High	Medium	Medium-Low	Low	Grassland High	Medium-High	Medium	Medium-Low	Low	Wetland High	Medium-High	Medium	Medium-Low	Low	Other High	Medium-High	Medium	Medium-Low	Low	Built Environment High	Medium-High	Medium	Medium-Low	Low
0			0.00																									
0	0		0.00																									
0	0		0.00																									
0	0		0.00																									
0	0		0.00																									
				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Creation	Distinctiveness	Area	Value	Woodland High	Medium-High	Medium	Medium-Low	Low	Grassland High	Medium-High	Medium	Medium-Low	Low	Wetland High	Medium-High	Medium	Medium-Low	Low	Other High	Medium-High	Medium	Medium-Low	Low	Built Environment High	Medium-High	Medium	Medium-Low	Low
Built Environment: Buildings/hardstanding	none	1.34	0.00																									
Built Environment: Gardens (lawn and planting)	Low	0.46	0.84																									0.84
Other: Introduced shrub	Low	0.05	0.09																				0.09					
Grassland: Amenity grassland	Low	0.11	0.20										0.20															
Grassland: Semi-improved neutral grassland	Medium	0.16	0.78								0.78																	
Grassland: Amenity grassland	Low	0.82	1.49										1.49															
Grassland: Semi-improved neutral grassland	Medium	0.19	0.92								0.92																	
Grassland: Semi-improved neutral grassland	Medium	0.37	2.69								2.69																	
Grassland: Semi-improved neutral grassland	Medium	0.04	0.19								0.19																	
Woodland: Broad-leaved plantation	Medium	0.11	0.24			0.24																						
Woodland: Scattered trees	Medium	0.18	0.60			0.60																						
Woodland: Dense continuous scrub	Medium-Low	0.05	0.18				0.18																					
	0		0.00																									
	0		0.00																									
	0		0.00																									
				0.00	0.00	0.84	0.18	0.00	0.00	0.00	4.58	0.00	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.84

Enhnacement	Distinctivenes	Area	Value	Woodland High	Medium-High	Medium	Medium-Low	Low	Grassland High	Medium-High	Medium	Medium-Low	Low	Wetland High	Medium-High	Medium	Medium-Low	Low	Other High	Medium-High	Medium	Medium-Low	Low	Built Environment High	Medium-High	Medium	Medium-Low	Low
0			0.00																									
0			0.00																									
0			0.00																									
0			0.00																									
0			0.00																									
0			0.00																									
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0			0.00																									
0			0.00																									
0			0.00																									
0			0.00																									
				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Loss	Gain		%		
Offset Requirements	7.73	8.22	0.49		-1.21	
Woodland	0.16	1.02	0.86		175.51%	13.57
Grassland	7.18	6.27	-0.91	75.21%	-185.71%	-14.36
Wetland	0.00	0.00	0.00		0.00%	0.00
Other	0.39	0.09	-0.30	24.79%	-61.22%	-4.73
Built Environment	0.00	0.84	0.84			

Provisioning Services

Regulating Services

Regulating Services

Index Link 3.61% 1.752242
Insurance Fund 10.00%
Management Cost 20.00%

Woodland

Biodiversity Impact Score	Primary habitat required in offset	Target habitat distinctiveness		Target habitat condition		Time till target condition		Difficulty of creation		Non-strategic area	Hectares of habitat required
		Distinctiveness	Score	Condition	Score	Time (years)	Score	Difficulty	Score		
0.00	Woodland: Broad-leaved semi-natural woodland	High	6	Moderate	2	30	2.8	Medium	1.5	2	0.00

Provider Agreement Set-up costs	Average Woodland creation cost per ha	Woodland maintenance cost per ha for 30 years	30 yrs Maintenance Cost plus inflation at	Estimated cost of offset	Insurance Contribution (index linked)	Management Cost (index linked)	Total Cost of Offset Contribution
H	I	£184 x 30 = J	J x 1.75 = K	H + I + K = L	M	N	L + M + N
£7,000	£1,584	£5,520	3.61%		10%	20%	
£0	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
						Cost per ha of habitat created	£0.00
						Cost per unit	£0.00

Grassland

Biodiversity Impact Score	Primary habitat required in offset	Target habitat distinctiveness		Target habitat condition		Time till target condition		Difficulty of creation		Non-strategic area	Hectares of habitat required
		Distinctiveness	Score	Condition	Score	Time (years)	Score	Difficulty	Score		
0.00	Grassland: Semi-improved neutral grassland	Medium	4	Good	3	25	2.4	Medium	1.5	2	0.00

Provider Agreement Set-up costs	Average Meadow creation cost per ha	Meadow maintenance cost per ha for 30 years	30 yrs Maintenance Cost plus inflation at	Estimated cost of offset	Insurance Contribution (index linked)	Management Cost (index linked)	Total Cost of Offset Contribution
H	I	£227 x 30 = J	J x 1.75 = K	H + I + K = L	M	N	L + M + N
£7,000	£1,686	£6,810	3.61%		10%	20%	
£0	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
						Cost per ha of habitat created	£0.00
						Cost per unit	£0.00

Wetland

Pond Cluster size: 4

Biodiversity Impact Score	Primary habitat required in offset	Target habitat distinctiveness		Target habitat condition		Time till target condition		Difficulty of creation		Strategic area	Hectares of habitat required
		Distinctiveness	Score	Condition	Score	Time (years)	Score	Difficulty	Score		
0.00	Wetland: Standing Water	High	6	Moderate	2	10	1.4	Medium	1.5	2	0.00

Number of Ponds to be created	Number of Pond clusters to be created	Provider Agreement Set-up costs	Average Pond creation cost per pond	Pond maintenance cost per pond for 30 years	30 yrs Maintenance Cost plus inflation at	Estimated cost of offset	Insurance Contribution (index linked)	Management Cost (index linked)	Total Cost of Offset Contribution
H	I	J	K	£70 x 30 = L	L x 1.75 = M	I + J + L = N	O	P	N + O + P
L / 0.017ha (av. Pond size)		£7000 per pond cluster	£1,212	£2,100	3.61%		10%	20%	
0	0.00	£0	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
								Cost per pond cluster created	£0.00
								Cost per unit	£0.00

Hedgerow

Biodiversity Impact Score	Primary habitat required in offset	Target habitat distinctiveness		Target habitat condition		Time till target condition		Difficulty of creation		Strategic Area	Km of habitat required
		Distinctiveness	Score	Condition	Score	Time (years)	Score	Difficulty	Score		
0.00	species rich hedge with trees	Medium-high	5	Good	3	20	2	Low	1	1	0.00
											0.00 metres

Provider Agreement Set-up costs	Average Hedgerow creation cost per km	Hedgerow maintenance cost per km for 30 years	30 yrs Maintenance Cost plus inflation at	Estimated cost of offset	Insurance Contribution (index linked)	Management Cost (index linked)	Total Cost of Offset Contribution
H	I	£7270 x 30 = J	J x 1.75 = K	H + I + K = L	M	N	L + M + N
£7,000	£9,400	£218,100	3.61%		10%	20%	
£0	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	
						Cost per ha of habitat created	£0.00
						Cost per unit	£0.00
	£9.40 per metre	£7.27 per metre					

	m2	ha	Plus grassland (x2)
Average HS2 pond	167	0.017	0.034
Stoneleigh otter	200	0.02	
Burton Green	100	0.01	
Burton Green	100	0.01	
Finham Brook ponds	300	0.03	
Finham Brook ponds	200	0.02	
Finham Brook ponds	100	0.01	