

**BREEAM 2018 - Change in Ecological Value Calculation**

Bradley Murphy Design  
 8 The Courtyard, Milton Technology Park, Dark Lane, Warwickshire, CV35 9XB  
 Tel: 01926 676496  
 email: info@bradleymurphydesign.co.uk



NOTE - MODIFIED VERSION

**PRE-DEVELOPMENT BIODIVERSITY UNIT CALCULATION**

Linear Habitats (Foliage)				
Habitat (a)	Length (m) (b)	Condition Band (c)	Condition Score (d)	Biodiversity Units (b x d)
Boundaries: Hedges - Intact - native species-rich	115.5	Good	3	346.50
Boundaries: Hedges - Intact - Species-poor	58.00	Good	3	174.00
Boundaries: Hedges - With trees - native species-rich	8.50	Good	3	25.50
<b>Total (i):</b>	<b>182.00</b>			<b>546.00</b>

Linear Habitats (Watercourse)				
Habitat (a)	Length (m) (b)	Condition Band (c)	Condition Score (d)	Biodiversity Units (b x d)
<b>Total (i):</b>	<b>6.00</b>			<b>0</b>

Area Habitats						
Habitat (a)	Area (m <sup>2</sup> ) (b)	Distinctiveness Band (c)	Distinctiveness Score (d)	Condition Band (e)	Condition Score (f)	Biodiversity Units (b x d x f)
Woodland: Broadleaved plantation	0.85	Medium	4	Poor	1	3.40
Woodland: Mixed plantation	1.22	Medium	4	Poor	1	4.88
Scrub: Dense/continuous	0.03	Medium	4	Poor	1	0.12
Parkland/scattered trees: Broadleaved	1.05	Medium	4	Poor	1	4.20
Neutral grassland: Semi-improved	0.46	Medium	4	Poor	1	1.84
Poor semi-improved grassland	0.43	Low	2	Poor	1	0.86
Standing water: Eutrophic	1.08	High	6	Moderate	2	12.96
Cultivated/disturbed land: amenity grassland	12.45	Low	2	Poor	1	24.90
Bare ground	0.01	Low	2	Poor	1	0.02
Parkland/scattered trees: Mixed	0.31	Medium	4	Poor	1	1.24
Parkland/scattered trees: Coniferous	0.22	Medium	4	Poor	1	0.88
Cultivated/disturbed land: Ecotone/short perennial	0.01	Low	2	Poor	1	0.02
Cultivated/disturbed land: Introduced shrub	0.15	Low	2	Poor	1	0.30
Other habitat: Bunkers	0.12	Low	2	Poor	1	0.24
<b>Total (i):</b>	<b>18.39</b>					<b>55.86</b>

**POST-DEVELOPMENT BIODIVERSITY UNIT CALCULATION**

Linear Habitats - Foliage (Lost)				
Habitat (a)	Length (m) (b)	Condition Band (c)	Condition Score (d)	Biodiversity Units (b x d)
Boundaries: Hedges - Intact - Species-poor	58.00	Good	3	174.00
<b>Total (i):</b>				<b>174.00</b>

Linear Habitats - Watercourse (Lost)				
Habitat (a)	Length (m) (b)	Condition Band (c)	Condition Score (d)	Biodiversity Units (b x d)
<b>Total (i):</b>				<b>0.00</b>

Linear Habitats - Foliage (Retained/Enhanced)				
Habitat (a)	Length (m) (b)	Condition Band (c)	Condition Score (d)	Biodiversity Units (b x d)
Boundaries: Hedges - Intact - native species-rich	115.5	Good	3	346.50
Boundaries: Hedges - With trees - native species-rich	8.5	Good	3	25.50
<b>Total (i):</b>				<b>372.00</b>

Linear Habitats - Watercourse (Retained/Enhanced)				
Habitat (a)	Length (m) (b)	Condition Band (c)	Condition Score (d)	Biodiversity Units (b x d)
<b>Total (i):</b>				<b>0.00</b>

Linear Habitats - Foliage (Created)				
Habitat (a)	Length (m) (b)	Condition Band (c)	Condition Score (d)	Biodiversity Units (b x d)
Boundaries: Hedges - Intact - native species-rich	520.50	Good	3	1561.50
Boundaries: Hedges - Intact - Species-poor	42.00	Good	3	126.00
Boundaries: Hedges - With trees - native species-rich	134.50	Good	3	403.50
Boundaries: Hedges - With trees - Species-poor	115.50	Good	3	346.50
<b>Total (i):</b>				<b>2037.50</b>

Linear Habitats - Watercourse (Created)				
Habitat (a)	Length (m) (b)	Condition Band (c)	Condition Score (d)	Biodiversity Units (b x d)
<b>Total (i):</b>				<b>0</b>

**TOTAL POST DEVELOPMENT LINEAR FOLIAGE BIODIVERSITY UNITS (iv+iv):** 216.94%  
**PERCENTAGE CHANGE IN LINEAR FOLIAGE BIODIVERSITY UNITS:** 117%

**TOTAL POST DEVELOPMENT LINEAR WATERCOURSE BIODIVERSITY UNITS (iv+iv):** 0.00  
**PERCENTAGE CHANGE IN LINEAR WATERCOURSE BIODIVERSITY UNITS:** #DIV/0!

Area Habitats (Lost)						
Habitat (a)	Area (m <sup>2</sup> ) (b)	Distinctiveness Band (c)	Distinctiveness Score (d)	Condition Band (e)	Condition Score (f)	Biodiversity Units (b x d x f)
Woodland: Broadleaved plantation	0.38	Medium	4	Poor	1	1.52
Woodland: Mixed plantation	0.43	Medium	4	Poor	1	1.72
Scrub: Dense/continuous	0.01	Medium	4	Poor	1	0.04
Parkland/scattered trees: Broadleaved	0.63	Medium	4	Poor	1	2.52
Neutral grassland: Semi-improved	0.46	Medium	4	Poor	1	1.84
Poor semi-improved grassland	0.42	Low	2	Poor	1	0.84
Standing water: Eutrophic	0.19	High	6	Moderate	2	2.28
Cultivated/disturbed land: amenity grassland	8.23	Low	2	Poor	1	16.46
Bare ground	0.01	Low	2	Poor	1	0.02
Parkland/scattered trees: Mixed	0.30	Medium	4	Poor	1	1.20
Parkland/scattered trees: Coniferous	0.02	Medium	4	Poor	1	0.08
Cultivated/disturbed land: Ecotone/short perennial	0.01	Low	2	Poor	1	0.02
Cultivated/disturbed land: Introduced shrub	0.15	Low	2	Poor	1	0.30
Other habitat: Bunkers	0.12	Low	2	Poor	1	0.24
<b>Total (i):</b>	<b>11.36</b>					<b>29.08</b>

Habitat (a)	Area (m <sup>2</sup> ) (b)	Current Distinctiveness Band (c)	Current Distinctiveness Score (d)	Current Condition Band (e)	Current Condition Score (f)	Pre-Dev. Biodiversity Units (b x d x f) (g)	Target Distinctiveness Band (h)	Target Distinctiveness Score (i)	Target Condition Band (j)	Target Condition Score (k)	Delivery Risk Factor (l)	Temporal Risk Factor (m)	Spatial Risk Factor (n)	Biodiversity Units (b x d x f x g x h x i x j x k x l x m x n) (o)
Retained - Woodland: Broadleaved plantation	0.32	Medium	4	Poor	1	1.28								1.28
Retained - Woodland: Mixed plantation	0.78	Medium	4	Poor	1	3.12								3.12
Retained - Parkland/scattered trees: Broadleaved	0.39	Medium	4	Poor	1	1.56								1.56
Retained - Standing water: Eutrophic	0.89	High	6	Moderate	2	10.68								10.68
Retained - Cultivated/disturbed land: amenity grassland	1.74	Low	2	Poor	1	3.48								3.48
Retained - Parkland/scattered trees: Mixed	0.01	Medium	4	Poor	1	0.04								0.04
Retained - Parkland/scattered trees: Coniferous	0.15	Medium	4	Poor	1	0.60								0.60
Enhanced - Woodland: Mixed plantation >>> Woodland: Mixed plantation	0.01	Medium	4	Poor	1	0.04	Medium	4	Good	3	1.00	0.71	1.00	0.85
Enhanced - Woodland: Mixed plantation >>> Woodland: Broadleaved plantation	0.02	Medium	4	Poor	1	0.08	Medium	4	Good	3	1.00	0.71	1.00	0.06
Enhanced - Scrub: Dense/continuous >>> Woodland: Mixed plantation	0.03	Medium	4	Poor	1	0.12	Medium	4	Good	3	1.00	0.71	1.00	0.11
Enhanced - Parkland/scattered trees: Broadleaved >>> Woodland: Broadleaved plantation	0.01	Low	2	Poor	1	0.02	Medium	4	Good	3	1.00	0.71	1.00	0.17
Enhanced - Poor semi-improved grassland >>> Neutral grassland: Semi-improved	0.01	Low	2	Poor	1	0.02	Medium	4	Good	3	1.00	0.71	1.00	0.07
Enhanced - Cultivated/disturbed land: Amenity grassland >>> Neutral grassland: Semi-improved	2.48	Low	2	Poor	1	4.96	Medium	4	Good	3	1.00	0.71	1.00	17.61
Enhanced - Parkland/scattered trees: Coniferous >>> Parkland/scattered trees: Broadleaved	0.05	Medium	4	Poor	1	0.20	Medium	4	Good	3	1.00	0.71	1.00	0.28
<b>Total (ii):</b>	<b>7.0300</b>													<b>39.92</b>

Area Habitats (Created)									
Habitat (a)	Area (m <sup>2</sup> ) (b)	Target Distinctiveness Band (c)	Target Distinctiveness Score (d)	Target Condition Band (e)	Target Condition Score (f)	Delivery Risk Factor (g)	Temporal Risk Factor (h)	Spatial Risk Factor (i)	Biodiversity Units (b x d x f x g x h x i) (j)
Woodland: Broadleaved plantation	2.18	Medium	4	Good	3	1.00	0.50	1.00	13.08
Woodland: Mixed plantation	0.23	Medium	4	Good	3	1.00	0.50	1.00	1.38
Scrub: Dense/continuous	0.48	Medium	4	Good	3	1.00	0.50	1.00	4.73
Parkland/scattered trees: Broadleaved	0.07	Medium	4	Good	3	1.00	0.50	1.00	0.42
Neutral grassland: semi-improved	0.58	Medium	4	Good	3	1.00	0.71	1.00	4.94
Marsh/marshy grassland	0.63	High	6	Moderate	2	0.33	0.71	1.00	1.77
Standing water: Eutrophic	0.20	High	6	Good	3	1.00	1.00	1.00	3.60
Cultivated/disturbed land: Amenity grassland	0.43	Low	2	Poor	1	1.00	0.93	1.00	0.80
Built-up areas: Buildings	6.41	NA	0	NA	0	0.00	0.00	0.00	0.00
Bare ground	0.15	Low	2	Poor	1	1.00	1.00	1.00	0.30
<b>Total (iii):</b>	<b>11.36</b>								<b>31.67</b>

**TOTAL POST DEVELOPMENT AREA BIODIVERSITY UNITS:** 70.99  
**PERCENTAGE CHANGE IN AREA BIODIVERSITY UNITS:** 27.68 ((vii-i)/i)\*100

<b>CHECK</b>	
TOTAL PRE-DEVELOPMENT AREA:	18.39
TOTAL POST-DEVELOPMENT AREA:	18.39