

Warwickshire Coventry and Solihull - Biodiversity Impact Assessment Calculator

v. 18.3 08/08/2014
 Amendment from v18.2 only affects green roofs, for other habitats v18.2 still usable.
 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

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

Local Planning Authority:	Cherwell District Council
Site name:	Catalyst Bicester
Planning application reference number:	
Assessor:	Aaron Grainger
Date:	14/08/2019

T. Note code	Phase 1 habitat description	Habitat area (ha)	Habitat distinctiveness		Habitat condition		Habitats to be retained with no change within development		Habitats to be retained and enhanced within development		Habitats to be lost within development		Comment
			Distinctiveness	Score	Condition	Score	Area (ha)	Existing value	Area (ha)	Existing value	Area (ha)	Existing value	
Direct Impacts and retained habitats													
Field 1 B22	Grassland - Semi-improved neutral grassland	4.52	Medium	4	Moderate	2				4.52	36.18		Plot 1 - semi-improved grassland
Field 1 G11	Wetland - Standing water	0.25	High	6	Moderate	2				0.22	2.64		2 x waterbodies on site
Poultry 6/a	Built Environment - Buildings/hardstanding	3.20	none	0	Poor	1				3.20	0.00		Existing poultry farm and associated buildings/hardstanding
Fields 2 B4	Grassland - Improved grassland	6.93	Low	2	Poor	1				6.93	13.86		Plots 2 & 3 - improved grassland in the north and east of the site.
Total		14.87					0.00	0.00	0.00	0.00	14.87	52.68	

Indirect Negative Impacts													
Before/after including off site habitats													
Value of loss from indirect impacts													
Site habitat biodiversity value													
Habitat Impact Score (HIS)													
Before		K		L		M		N		O		P	
After		K		L		M		N		O		P	
Before		K		L		M		N		O		P	
After		K		L		M		N		O		P	
Before		K		L		M		N		O		P	
After		K		L		M		N		O		P	
Before		K		L		M		N		O		P	
After		K		L		M		N		O		P	
Total		0.00		0.00		0.00		0.00		0.00		0.00	

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

T. Note code	Phase 1 habitat description	Area (ha)	Proposed habitats on site (Onsite mitigation)		Target habitats distinctiveness		Target habitat condition		Time till target condition		Difficulty of creation / restoration		Habitat biodiversity value	Comment
			N	O	Distinctiveness	Score	Condition	Score	Time (years)	Score	Difficulty	Score		
Scattered P22	Wetland: Inundation vegetation	2.83	High	6	Good	3		20 years	2	Low	1	25.47	Shown as 'proposed swale mix' on the soft landscaping proposals (Plan Refs: LB291_D04 and LB291_D05)	
Wet grass A112	Woodland: Mixed plantation	0.26	Low	2	Good	3		15 years	1.7	Medium	1.5	0.71	Shown as 'proposed native woodland mix' on the soft landscaping proposals (Plan Refs: LB291_D04 and LB291_D05)	
Built for B22	Grassland - Semi-improved neutral grassland	1.76	Medium	4	Good	3		5 years	1.2	Medium	1.5	11.73	Shown as 'proposed wildflower mix' on the soft landscaping proposals (Plan Refs: LB291_D04 and LB291_D05)	
Grassland J14	Other: Introduced shrub	0.10	Low	2	Moderate	2		5 years	1.2	Low	1	0.33	Shown as 'proposed amenity planting' on the soft landscaping proposals (Refs: LB291_D04 and LB291_D05)	
A22	Woodland: Scattered scrub	0.02	Medium	4	Good	3		5 years	1.2	Low	1	0.29	Shown as 'proposed native shrub mix' on the soft landscaping proposals (Refs: LB291_D04 and LB291_D05)	
J12	Grassland: Amenity grassland	1.01	Low	2	Moderate	2		5 years	1.2	Low	1	3.37	Shown as 'proposed amenity grass mix' on the soft landscaping proposals (Refs: LB291_D04 and LB291_D05)	
W18	Woodland: Dense continuous scrub	0.43	Medium/Low	3	Moderate	2		5 years	1.2	Low	1	2.17	Shown as 'proposed wetland planting' on the soft landscaping proposals (Refs: LB291_D04 and LB291_D05)	
H8	Wetland: Reedbed	0.15	High	6	Moderate	2		10 years	1.4	Low	1	1.26	Shown as 'proposed reedbed' on the soft landscaping proposals (Refs: LB291_D04 and LB291_D05)	
B22	Grassland - Semi-improved neutral grassland	3.03	Medium	4	Good	3		5 years	1.2	Medium	1.5	20.20	Shown as 'wetland dry meadow mix' on the soft landscaping proposals (Refs: LB291_D04 and LB291_D05)	
A3	Woodland: Scattered trees	0.87	Medium	4	Good	3		25 years	2.4	Low	1	4.35	Scattered Native Tree Planting	
6/a	Built Environment: Buildings/hardstanding	4.97	none	0	Poor	1		5 years	1.2	Low	1	0.99	Buildings and Hardstanding	
Total		14.87												

Habitat Enhancement		14.87		ERROR - Total area of habitats created must equal total area of habitats lost		Existing value S (= F)		Trading down correction value		0.00		Habitat Mitigation Score (HMS)		63.70	
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Habitat Biodiversity Impact Score													17.05		Gain	
Percentage of biodiversity impact loss													11.46%			

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

Loss to biodiversity	
Gain to biodiversity	

Warwickshire Coventry and Solihull - Biodiversity Impact Assessment Calculator - Linear Features

Please fill in both tables

KEY	
No action required	
Action required	
Drop-down menu	
Calculation	
Automatic backup	
Result	

Linear Features
Hedges and other linear features can offer a higher biodiversity value per length than a standard area of habitat due to factors such as connectivity and must therefore be compensated for in parallel to the standard metric.

Please do not edit the formulae or structure
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If additional rows are required, or to provide feedback on the calculator please contact WCC Ecological Services

T. Note code	Phase 1 habitat description	Feature length (km)	Linear distinctiveness		Linear condition		Linear features to be retained with no change within development		Linear features to be retained and enhanced within development		Linear features to be lost within development		Comment
			Distinctiveness	Score	Condition	Score	Length (km)	Existing value	Length (km)	Existing value	Length (km)	Existing value	
Direct Impacts and retained features			A	B	C	D	E	F	G	H			
Hedgerow J231	Hedges: Native species rich hedge with trees	0.52	High	6	Moderate	2		0.23	2.76	0.29	3.48		Hedgerow H1
Hedgerow J23	Hedges: Hedge with trees	0.35	Medium-High	5	Moderate	2		0.07	0.70	0.28	2.80		Hedgerow H2
Hedgerow J21	Hedges: Intact hedge	0.33	Medium	4	Moderate	2		0.33	2.64				Hedgerow H3
Ditches J26	Ditches: Dry ditch	0.57	Low	2	Poor	1	0.51	1.02	0.06	0.12			Ditches D1 and D3
Total			1.77				0.51	1.02	0.69	6.22	0.57	6.28	
Site Linear Biodiversity Value											13.32		
Indirect Negative Impacts			Value of loss from indirect impacts		K x A x B = L1, L4		L1 - L4						
Before/After Impact		K											
Before													
After													
Before													
After													
Before													
After													
Before													
After													
Before													
After													
Total			0.00				M	0.00					
Linear Impact Score (LIS)											6.28		
HIS = J + M													

CAUTION - Destruction of features of medium or high distinctiveness, e.g. hedgerows and streams, may be against local policy. Has the mitigation hierarchy been followed, can impact to these habitats be avoided? Any unavoidable loss of valuable habitats must be replaced like-for-like. E.G. Loss of hedgerows must be replaced with similar or better hedgerows. All newly planted hedges should be native species-rich hedgerows.

T. Note code	Phase 1 habitat description	Length (km)	Proposed linear features on site (Onsite mitigation)		Target linear distinctiveness		Target linear condition		Time till target condition		Difficulty of creation / restoration		Linear Biodiversity value (N x O x P) / Q / R	Comment
			Length (km)	Distinctiveness	Score	Condition	Score	Time (years)	Score	Difficulty	Score			
Linear Creation			N	O	P	Q	R							
J211	Hedges: Native species rich intact hedge	1.33	High	6	Good	3		15 years	1.7	Low	1	14.08	New hedgerow planting shown on the soft landscaping proposals (Plan Refs: LB291_D01, LB291_D02, and LB291_D03)	
Total			1.33											
Linear Enhancement			Existing value S (= F)		Q / R									
Enhance J23	Hedges: Hedge with trees	0.07	Medium-High	5	Good	3	0.70	5 years	1.2	Low	1	0.29	Enhancement of the retained section of Hedgerow H2	
Enhance J21	Hedges: Intact hedge	0.33	Medium	4	Good	3	2.64	5 years	1.2	Low	1	1.10	Enhancement of the retained section of Hedgerow H3	
Enhance J231	Hedges: Native species rich hedge with trees	0.23	High	6	Good	3	2.76	5 years	1.2	Low	1	1.15	Enhancement of the retained section of Hedgerow H1	
Enhance J2	Ditches: Running water	0.06	High	6	Good	3	0.12	10 years	1.4	Low	1	0.69	Enhancement of the retained section of ditch D1	
Total			0.69											
Trading down correction value											0.00			
Linear Mitigation Score (LMS)											12.21			
LBS = LMS - LIS											11.93			
Linear Biodiversity Impact Score											11.93	Gain		
Percentage of linear impact loss														

KEY	
No action required	
Action required	
Drop-down menu	
Calculation	
Automatic backup	
Overall Result	
Loss to biodiversity	
Gain to biodiversity	

Biodiversity Impact Assessment Summary

Site name:	Catalyst Bicester
Planning reference number:	

Habitats	Area (ha)	Habitat Biodiversity Value
Total existing area onsite	14.87	52.68
Habitats negatively impacted by development Habitat Impact Score	14.87	52.68
On site habitat mitigation Habitat Mitigation Score	14.88	69.79
Habitat Biodiversity Impact Score		
If -ve further compensation required		17.10
Percentage of biodiversity impact		
Linear features	Length (km)	Linear Biodiversity Value
Total existing length onsite	1.77	13.52
Linear features negatively impacted by development Linear Impact Score	0.57	6.28
On site linear mitigation Linear Mitigation Score	2.02	17.31
Linear Biodiversity Impact Score		
If -ve further compensation required		11.03
Percentage of linear biodiversity impact		

CAUTION - Destruction of habitats of high distinctiveness, e.g. lowland meadow, ancient woodland or species-rich hedgerows, 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-

For any questions with regard to biodiversity impact and this development please contact Warwickshire County Council Ecological Services:

email: planningecology@warwickshire.gov.uk
tel: 01926 418060

If there is an anticipated loss to biodiversity and no further ecological enhancements can be incorporated within the development it may be possible to compensate for this loss through a biodiversity offsetting scheme.

Please contact The Environment Bank for discussions on potential receptor sites in your area:

email: lmartland@environmentbank.com
tel: 01926 412772



Phase 1 Habitat Descriptions	Phase 1 Habitat Codes	Distinctiveness		Difficulty of creation		Difficulty of restoration	
Built Environment: Buildings/hardstanding	n/a	none	0	Low	1	Low	1
Built Environment: Gardens (lawn and planting)	n/a	Low	1	Low	1	Low	1
Woodland: Broad-leaved semi-natural woodland	A111	High	6	n/a	-	Low	1
Woodland: Broad-leaved plantation	A112	Medium	4	Medium	1.5	Low	1
Woodland: Coniferous semi-natural woodland	A121	Medium	4	n/a	-	Low	1
Woodland: Coniferous plantation	A122	Low	2	Medium	1.5	Low	1
Woodland: Mixed semi-natural woodland	A131	Medium	4	n/a	-	Low	1
Woodland: Mixed plantation	A132	Low	2	Medium	1.5	Low	1
Woodland: Wet woodland	n/a	High	6	Medium	1.5	Medium	1.5
Woodland: Dense continuous scrub	A21	Medium-Low	3	Low	1	Low	1
Woodland: Scattered scrub	A22	Medium	4	Low	1	Low	1
Woodland: Scattered trees	A3	Medium	4	Low	1	Low	1
Woodland: Broad-leaved parkland	A31	High	6	Medium	1.5	Low	1
Woodland: Coniferous parkland	A32	Medium	4	Medium	1.5	Low	1
Woodland: Recently felled woodland	A4	Low	2	n/a	-	n/a	-
Woodland: Orchard	A5	High	6	Low	1	Low	1
Grassland: Unimproved acidic grassland	B11	High	6	Medium	1.5	Low	1
Grassland: Semi-improved acidic grassland	B12	Medium-High	5	Medium	1.5	Low	1
Grassland: Unimproved neutral grassland	B21	High	6	Medium	1.5	Low	1
Grassland: Semi-improved neutral grassland	B22	Medium	4	Medium	1.5	Low	1
Grassland: Unimproved calcareous grassland	B31	High	6	Medium	1.5	Low	1
Grassland: Semi-improved calcareous grassland	B32	Medium-High	5	Medium	1.5	Low	1
Grassland: Poor semi-improved grassland	B6	Medium-Low	3	Medium	1.5	Low	1
Grassland: Improved grassland	B4	Low	2	n/a	-	Low	1
Grassland: Marsh / Marshy grassland	B5	High	6	High	3	Medium	1.5
Grassland: Dry heath / Acidic grassland mosaic	D5	High	6	Medium	1.5	Medium	1.5
Grassland: Set-aside / Arable field margins	J113	High	6	Low	1	Low	1
Grassland: Amenity grassland	J12	Low	2	Low	1	Low	1
Wetland: Standing water	G1	High	6	Medium	1.5	Medium	1.5
Wetland: Running water	G2	High	6	Medium	1.5	Medium	1.5
Wetland: Reedbed	n/a	High	6	low	1	low	1
Wetland: Sphagnum Bog	E11	High	6	Very High	10	High	3
Wetland: Acid/neutral flush	E21	High	6	High	3	Medium	1.5
Wetland: Basin Mire	E32	High	6	High	3	Medium	1.5
Wetland: Swamp	F1	High	6	High	3	Medium	1.5
Wetland: Inundation vegetation	F22	High	6	Low	1	Low	1
Other: Arable	J11	Low	2	n/a	-	n/a	-
Other: Continuous bracken	C11	Low	2	Low	1	Low	1
Other: Tall ruderal	C31	Medium-Low	3	Low	1	Low	1
Other: Non-ruderal	C32	Medium	4	Low	1	Low	1
Other: Ephemeral/short perennial	J13	Low	2	Low	1	Low	1
Other: Allotments	J112	Low	2	Low	1	Low	1
Other: Quarry	I21	Low	2	Low	1	Low	1
Other: Spoil	I22	Low	2	Low	1	Low	1
Other: Refuse tip	I24	Low	2	Low	1	Low	1

Distinctiveness	
High	6
Medium-High	5
Medium	4
Medium-Low	3
Low	2
none	0

Condition	
Good	3
Moderate	2
Poor	1

Time	
5 years	1.2
10 years	1.4
15 years	1.7
20 years	2
25 years	2.4
30 years	2.8
32+ years	3

Difficulty	
Very high	10
High	3
Medium	1.5
Low	1
n/a	0

Other: Introduced shrub	J14	Low	2	Low	1	Low	1
Other: Bare ground	J4	Low	2	Low	1	Low	1
Other: Green roof	n/a	Low	2	Low	1	Low	1
Linear features							
Hedges: Intact hedge	J21	Medium	4	Low	1	Low	1
Hedges: Native species rich intact hedge	J211	High	6	Low	1	Low	1
Hedges: Hedge with trees	J23	Medium-High	5	Low	1	Low	1
Hedges: Native species rich hedge with trees	J231	High	6	Low	1	Low	1
Hedges: Defunct hedge	J22	Low	2	n/a	-	n/a	-
Hedges: Linear scrub	A21	Medium	4	Low	1	Low	1
Hedges: Linear trees	A3	Medium	4	Low	1	Low	1
Hedges: Introduced shrub	J14	Low	2	Low	1	Low	1
Ditches: Standing water	G1	High	6	Medium	2	Low	1
Ditches: Running water	G2	High	6	Medium	2	Low	1
Ditches: Dry ditch	J26	Low	2	Low	1	Low	1
Boundaries: Fence	J24	None	0	Low	1	Low	1
Boundaries: Wall	J25	Low	2	Low	1	Low	1
Boundaries: Dry stone wall	J25	Medium	4	Low	1	Low	1
Other: Inland cliff	I1	Medium	4	Low	1	Low	1
Other: Earth bank	J28	Low	2	Low	1	Low	1
Other: Green wall	n/a	Low	2	Low	1	Low	1

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							
Hedges: Native species rich hedge with trees	0.29	High	3.48	0.00	0.00	0.00	0.00
Hedges: Hedge with trees	0.28	Medium-High	0.00	2.8	0.00	0.00	0.00
Hedges: Intact hedge		Medium	0.00	0.00	0.00	0.00	0.00
Ditches: Dry ditch		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
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	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	0.57		3.48	2.80	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
Hedges: Native species rich intact hedge	1.33	High	14.08	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	0.00		0.00	0.00	0.00	0.00	0.00
-	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	2.02		15.92	0.29	1.10	0.00	0.00

Linear trading down correction

	High	Medium-High	Medium	Medium-Low	Low	
Value of existing habitat loss per distinctiveness	3.48	2.80	0.00	0.00	0.00	
Value of created habitats per distinctiveness	15.92	0.29	1.10	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)	12.44	9.93	11.03	11.03	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.