

Appendix 4: DEFRA Biodiversity Calculator

Table 6: Baseline habitats

Ref	Habitats and areas			Habitat distinctiveness		Habitat condition		Ecological connectivity			Strategic significance			Suggested action to address habitat losses	Ecological baseline Total habitat units	Retention category biodiversity value							
	Broad Habitat	Habitat type	Area (hectares)	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier			Area retained	Area enhanced	Area succession	Baseline units retained	Baseline units enhanced	Baseline units succession	Area lost	Units lost
1	Urban	Urban - Vacant/derelict land/bareground	0.007	Low	2	Poor	1	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Same distinctiveness or better habitat required	0.02	0	0	0	0.00	0.00	0.00	0.01	0.02
2	Urban	Urban - Woodland	0.063	Medium	4	Poor	1	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Same broad habitat or a higher distinctiveness habitat required	0.28	0	0	0	0.00	0.00	0.00	0.06	0.28
3	Urban	Urban - Developed land; sealed surface	0.078	V.Low	0	N/A - Other	0	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Compensation Not Required	0.00	0	0	0	0.00	0.00	0.00	0.08	0.00
4	Urban	Urban - Developed land; sealed surface	0.026	V.Low	0	N/A - Other	0	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Compensation Not Required	0.00	0	0	0	0.00	0.00	0.00	0.03	0.00
5	Urban	Urban - Developed land; sealed surface	0.01	V.Low	0	N/A - Other	0	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Compensation Not Required	0.00	0	0	0	0.00	0.00	0.00	0.01	0.00
6	Urban	Urban - Developed land; sealed surface	0.01	V.Low	0	N/A - Other	0	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Compensation Not Required	0.00	0	0	0	0.00	0.00	0.00	0.01	0.00
7	Urban	Urban - Developed land; sealed surface	0.868	V.Low	0	N/A - Other	0	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Compensation Not Required	0.00	0	0	0	0.00	0.00	0.00	0.87	0.00
8	Urban	Urban - Introduced shrub	0.124	Low	2	Poor	1	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Same distinctiveness or better habitat required	0.27	0	0	0	0.00	0.00	0.00	0.12	0.27

9	Urban	Urban - Developed land; sealed surface	0.0316	V.Low	0	N/A - Other	0	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium Strategic significance	1.1	Compensation Not Required	0.00	0	0	0	0.00	0.00	0.00	0.03	0.00
10	Urban	Urban - Street Tree	0.0511	Low	2	Moderate	2	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic significance	1	Same distinctiveness or better habitat required	0.20	0.0366	0	0	0.15	0.00	0.00	0.01	0.06
11	Urban	Urban - Developed land; sealed surface	0.02	V.Low	0	N/A - Other	0	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic significance	1	Compensation Not Required	0.00	0	0	0	0.00	0.00	0.00	0.02	0.00
		Total site area ha	1.24											Total Site baseline	0.77	0.4	0	0	0.15	0	0	1.25	0.62

Table 7: Proposed habitat creation

Proposed habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Post development/ post intervention habitats											Habitat units delivered
						Ecological connectivity			Strategic significance			Temporal multiplier		Difficulty multipliers			
						Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier	Time to target condition/years	Time to target multiplier	Difficulty of creation category	Difficulty of creation multiplier		
Urban - Amenity grassland	0.06	Low	2	Poor	1	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	1	0.965	Low	1	0.13	
Urban - Rain garden	0.006	Low	2	Good	3	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	1	0.965	Low	1	0.04	
Urban - Introduced shrub	0.04	Low	2	Good	3	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	1	0.965	Low	1	0.25	
Urban - Ground based green wall	0.04	Low	2	Moderate	2	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	3	0.899	Medium	0.67	0.11	
Urban - Extensive green roof	0.006	Medium	4	Moderate	2	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	3	0.899	Medium	0.67	0.03	
Urban - Street Tree	0.0158	Low	2	Moderate	2	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	27	0.382	Low	1	0.02	

Urban - Introduced shrub	0.045	Low	2	Moderate	2	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	1	0.965	Low	1	0.19
Urban - Developed land; sealed surface	1.0401	V.Low	0	N/A - Other	0	N/A	Assessment not appropriate	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	0	1.000	Low	1	0.00
Urban - Extensive green roof	0.0005	Medium	4	Moderate	2	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	3	0.899	Medium	0.67	0.00
Totals	1.24														Total units	0.77

Table 8: Baseline hedgerow habitat

Baseline ref	UK Habitats - existing habitats			Habitat distinctiveness		Habitat condition		Ecological connectivity			Strategic significance			Suggested action to address habitat losses	Ecological baseline Total hedgerow units	Retention category biodiversity value					
	Hedge number	Hedgerow type	length KM	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier			Length retained	Length enhanced	Units retained	Units enhanced	Length lost	Units lost
1	1	Native Hedgerow	0.087	Low	2	Poor	1	Low	Unconnected habitat	1	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Same distinctiveness band or better	0.1914	0	0	0	0	0.087	0.1914
		Total Site length/km	0.09											Total site baseline	0.19	0	0	0	0	0.09	0.19

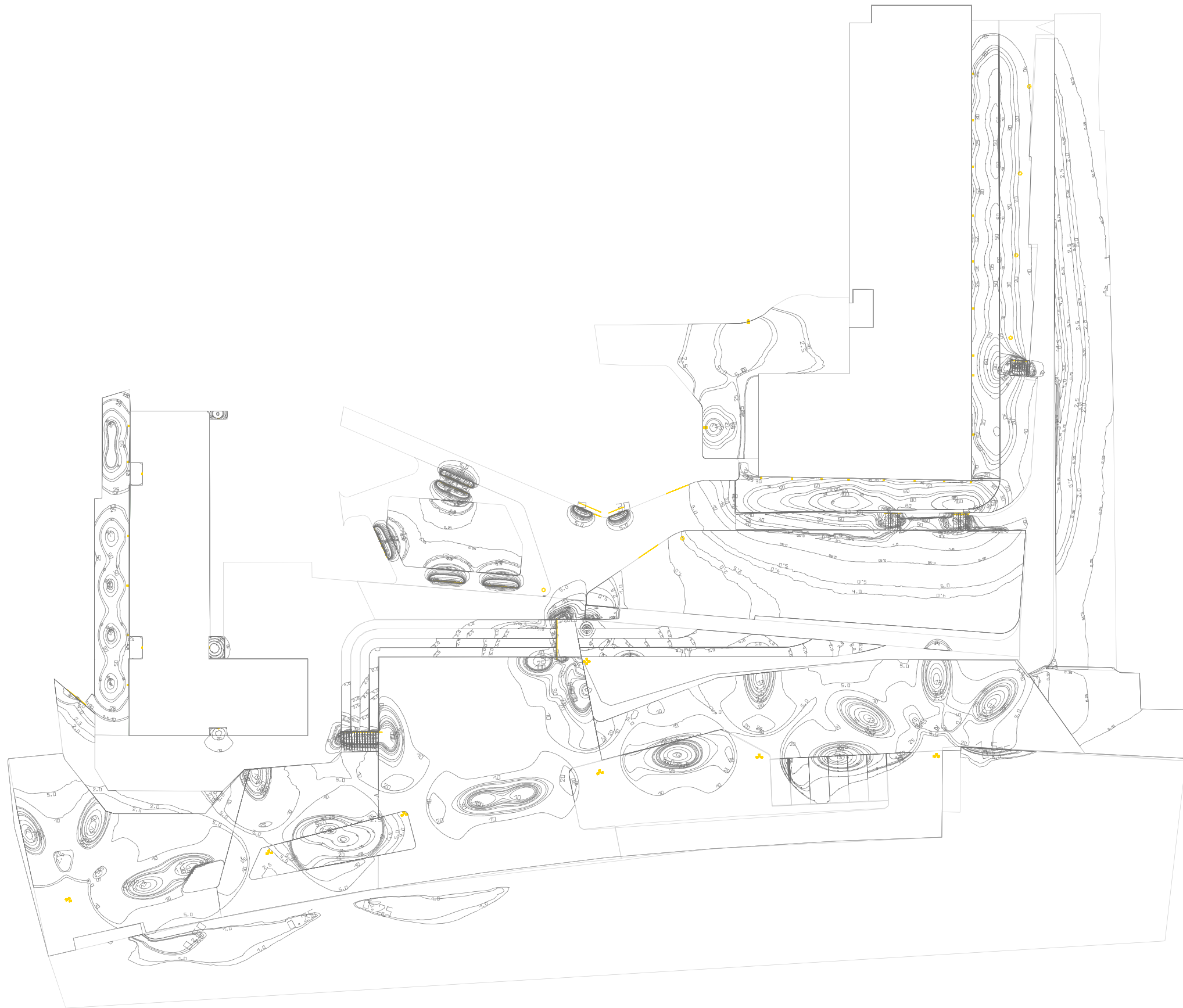
Table 9: Hedgerow offsite compensation

		Spatial quality																	
		Proposed habitats		Habitat distinctiveness		Habitat condition		Ecological connectivity			Strategic significance			Temporal multiplier		Difficulty of creation multiplier	Hedge units delivered	Comments	
Baseline ref	New hedge number	Habitat type	Length kbfum	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier	Time to target condition/years	Time to target multiplier			Assessor comments	Reviewer comments
1		Native Species Rich Hedgerow	0.087	Medium	4	Moderate	2	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0.837	0.67	0.39	The creation of an area of replacement hedgerow within the Site is not seen as suitable compensation. A contribution to offsite compensation is seen as a more efficient use as an urban hedgerow is likely to become defunct with public making gaps, large amounts of litter becoming trapped at the base and not being as beneficial to wildlife as an offsite hedgerow would be.	
		Creation length/km	0.09														0.39		

Table 10: River baseline habitat

Existing river type			Habitat distinctiveness		Habitat condition		Strategic significance			Suggested action	Ecological baseline Total river units	Retention category biodiversity value						Comments	
Baseline ref	River type	length KM	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier			Length retained	Length enhanced	Units retained	Units enhanced	Length impacted	Units Lost	Assessor Comments	Reviewer comments
1	Rivers & Streams (Other)	0.144	Medium	4	Good	5	Within Local Plans	High strategic significance	1.15	Avoid	3.312	0.144	0	3.312	0	0	0	No significant impacts are likely given the only impact is a small pontoon being installed. This will only cause a small area of shading on the river. A mixture of shade and more exposed areas are a key characteristic of rivers creating a range of habitats within the river. Opportunities for providing enhanced opportunities for fish as part of the pontoon structure will be explored in detailed design.	
	Total site length	0.14								Total site	3.31	0.14	0	3.31	0	0	0		

Appendix 5: Lux level plot



SKELLY & COUCH

Sketch Number:
1486-SAC-CAL-Site lux plot
isolines_r01.pdf

Project: Twickenham Riverside

Date: 02/08/2021