

APPENDIX D

MORPHOLOGICAL RESTORATION OPTIONS

Table D1 Location of morphological restoration reaches

WB ID	WB name	Reach #	Reach location	Reach length (m)	u/s		d/s	
					x	y	x	y
10604	Cluden Water / Cairn Water	1	Hallhill to Roundhead Plantation	2550	290689	579922	292604	579728
		2	Drumpark Bridge to Cairnryan	2030	288155	580028	289856	579783
		3	Upstream Drumpark Bridge	2350	286228	581983	287581	580160
		4	Gardener's Pool	730	285783	584744	286030	584223
		5	Wallaceton to Kiln Plantation	2670	284710	587143	285662	585092
		6	Crossford Bridge to Wallaceton	1950	283450	588291	284586	587225
		7	Shaw Plantation	730	282165	588728	282840	588450
		8	Kirkland bridge to Shaw Wood	1800	281218	590087	282031	588782
		9	Upstream Kirkland bridge	3280	278550	590226	281218	590087
10610	Nith - Dumfries to Sanquhar	1	Pennyland Burn to A75	1900	296898	580045	297818	578476
		2	Swanbridge Cottage to Holm Farm	1670	295315	582535	296053	581201
		3	Laggan Burn to Swanbridge Cottage	2200	293550	583456	295333	582478
		4	Auldgirith	4220	289587	588515	291473	585537
		5	Upstream Auldgirith	3080	287777	591367	289382	588949
		6	Thornhill	3380	287082	595471	287212	593115
		7	Downstream Sanquhar	1600	278118	608961	279283	608576
10611	Nith - Sanquhar to New Cumnock	1	Upstream Duncansburn Bridge	6460	262161	614020	266928	613338
10629	Scar Water	1	Downstream half	2220	285883	594155	287100	592496
		2	Penpont	1810	284584	594034	285611	594374
10629	Cample Water	1	Downstream Kirkbog Bank	1080	287568	594392	286801	593661
		2	Gallows Knowe	190	288425	594284	288252	594323
		3	Cample to New Cample	1150	289671	594148	288780	594011
10631	Crichope Linn	1	Adjacent to forestry	1170	292445	597544	293006	596547
		2	Townhead	480	291688	598286	292046	597989
10633	Laggan Burn	1	Downstream of A76	890	292741	583479	293290	583472
		2	Woodhead	1910	287978	584715	289652	585057
		3	Downstream Throughgate	520	287392	584235	287795	584550
		4	Upstream Throughgate	780	286916	583715	287392	584235
10634	Pennyland Burn	1	Downstream Wellington Bridge	1300	297160	581211	296918	580083
		2	Kerricks to East Gallaberry	1480	295672	583522	296572	582598
		3	Foregirith	890	295341	584199	295672	583522

Table D2 Capacity released by morphological restoration options

		Colour codes:			Improves status to Good		Improves status by 2 classes		Improves status by 1 class												
WB ID	WB name	Capacity used	Status	Extra capacity needed for GES	Extra capacity to move up 2 classes	Extra capacity to move up 1 class	Reach #	Restoration options - capacity released								Max capacity release	Set back embankments and HIR to LIR				
								Remove EM	Set back EM	Mitigate HIR	HIR to LIR	Mitigate LIR	Remove BP	Remove croys	Remove weirs			Remove culverts	Restore vegetation		
10604	Cluden Water / Cairn Water	65.7	Poor	40.7	40.7	15.7	1	5.8	5.4					0.6					6.3		
							2	4.0	3.7					0.6						4.6	
							3	4.0	3.7					0.2						4.2	
							4	1.2	1.1					0.1						1.2	
							5	6.4	5.9	2.5	1.7			0.2						9.1	7.6
							6	5.8	5.3					0.1			0.0			5.9	
							7	1.9	1.8					0.0						2.0	
							8	7.7	7.1	2.3	1.9	0.3		0.8						11.2	9.0
							9	13.8	12.7					1.6						15.4	
10610	Nith - Dumfries to Sanquhar	47.1	Moderate	22.1	42.1	22.1	1	2.5	2.4					0.5					3.0		
							2	2.8	2.6					0.8					3.6		
							3	1.8	1.7	2.8	2.2			0.9					5.5	3.9	
							4	2.5	2.3					1.3					3.8		
							5	3.4	3.1	6.2	5.1			0.8					10.5	8.2	
							6	5.8	5.4					1.9					7.7		
							7	1.7	1.6					0.0					1.7		
10611	Nith - Sanquhar to New Cumnock	51.3	Poor	26.3	26.3	1.3	1	38.0	35.4				1.0				2.8	41.8			
10629	Scar Water	116.1	Bad	91.1	66.1	41.1	1	16.6	15.3	55.6	45.3		13.8					86.0	60.6		
							2	21.1	19.6				2.3						23.5		
10629	Cample Water	84.8	Bad	59.8	34.8	9.8	1	12.3	11.4	28.8	23.4		2.7		0.0			43.8	34.8		
							2	4.7	4.3				0.5					5.2			
							3	24.8	22.9				1.1		0.0			25.9			
10631	Crichope Linn	36.8	Moderate	11.8	31.8	11.8	1			19.7	13.3							20.7			
							2	2.4	2.3	4.3	2.7					0.1	1.0	6.7			
10633	Laggan Burn	53.3	Poor	28.3	28.3	3.3	1	10.2	9.4			0.8	0.0		0.0			11.0			
							2	2.0	1.8	8.3	6.7	0.8		0.0	0.1			11.1	8.5		
							3			7.2	5.7	0.4						7.6			
							4	1.1	1.1	10.5	8.2				0.0	0.2		11.6	9.2		
10634	Pennyland Burn	56.7	Poor	31.7	31.7	6.7	1	5.5	5.1	9.4	6.3		0.1					15.0	11.4		
							2	4.5	4.2	10.0	6.7		0.4					14.9	10.9		
							3	4.2	3.9	8.7	6.6		0.2					13.0	10.5		

