

Project Summary Sheet					
Client/Authority North Yorkshire County Council			Prepared (date) 31/05/2012		
Project name Sandstead Road Coast Protection Scheme PAR - Strategic Options			Printed 31/05/2012		
Project reference 9W5572/Z3			Prepared by Emma Hick		
Base date for estimates (year 0) Q4 2011			Checked by		
Scaling factor (e.g. £m, £k, £) £			Checked date		
Year 0 30 75			(used for all costs, losses and benefits)		
Discount Rate 3.5% 3.00% 2.50%					
Optimism bias adjustment factor 60%					
Costs and benefits of options					
Option number	Costs and benefits £				
	Option 1	Option 2	Option 3	Option 4	Option 5
Option name	Do-nothing	Do Minimum	Realign A174	Upgrade Minor Roads	Retain A174 on current alignment
AEP or SoP (where relevant)					
COSTS:					
PV capital costs	0	0	26,599,361	13,029,255	8,263,316
PV operation and maintenance costs	0	1,501,338	405,594	405,594	415,495
PV other	0	45,592	45,592	45,592	45,594
Optimism bias adjustment	0	928,158	16,230,328	8,088,264	5,234,643
PV negative costs (e.g. sales)	0	0	0	0	0
PV contributions					
Total PV Costs £ excluding contributions	0	2,475,087	43,280,875	21,568,705	13,959,047
Total PV Costs £ taking contributions into account	0	2,475,087	43,280,875	21,568,705	13,959,047
BENEFITS:					
PV monetised flood damages	0	0	0	0	0
PV monetised flood damages avoided		0	0	0	0
PV monetised erosion damages	101,673,563	101,488,374	2,113,385	63,247,507	298,140
PV monetised erosion damages avoided (protected)		185,189	99,560,178	38,426,056	101,375,422
Total monetised PV damages £	101,673,563	101,488,374	2,113,385	63,247,507	298,140
Total monetised PV benefits £		185,189	99,560,178	38,426,056	101,375,422
PV damages (from scoring and weighting)					
PV damages avoided/benefits (from scoring and weighting)					
PV benefits from ecosystem services					
Total PV damages £	101,673,563	101,488,374	2,113,385	63,247,507	298,140
Total PV benefits £		185,189	99,560,178	38,426,056	101,375,422
DECISION-MAKING CRITERIA:					
excluding contributions					
Based on total PV benefits (includes benefits from scoring and weighting and ecosystem services)					
Net Present Value NPV		-2,289,898	56,279,303	16,857,351	87,416,375
Average benefit/cost ratio BCR		0.1	2.3	1.8	7.3
Incremental benefit/cost ratio IBCR			2.4	2.8	-8.3
			IBCR>1	IBCR>1	Highest bcr
Based on monetised PV benefits (excludes benefits from scoring and weighting and ecosystem services)					
Net Present Value NPV		-2,289,898	56,279,303	16,857,351	87,416,375
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including contributions					
Taking account of contributions (includes benefits from scoring and weighting and ecosystem services)					
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			IBCR>1	IBCR>1	Highest bcr
Best practicable environmental option (WFD)					
Brief description of options:					
Option 1	Do-nothing				
Option 2	Do Minimum				
Option 3	Realign A174				
Option 4	Upgrade Minor Roads				
Option 5	Retain A174 on current alignment				
Comments and assumptions:					

Erosion Loss Calculation Sheet with delay options					Sheet Nr.	1			
Client/Authority North Yorkshire County Council									
Project name Sandsend Road Coast Protection Scheme PAR - Strat		Option: Option 2		Delay (yrs) 5	Prepared (date) Printed	31/05/2012			
Project reference Base date for estimates (year 0)		Option 3		5	Prepared by Checked by	Emma Hick			
Scaling factor (e.g. £m, £k, £) Discount rate		Option 4 Option 5		5 100	Checked date	0 0			
9W5572/Z3 Q4 2011 £ 3.5%									
Ref	Asset Description	Risk free market value £	Year when the asset is expected to be lost	Prob of loss in year	Expected value of asset losses £				
					Do-nothing	Do Minimum	Realign A174	Upgrade Minor Roads	Retain A174 on current alignment
0	Sandhills	275802.00	99	1	14,366.10	-	-	-	-
1	Fairfields	173585.00	99	1	9,041.78	-	-	-	-
2	Cliff View	173585.00	99	1	9,041.78	-	-	-	-
3	Haywood	148196.00	99	1	7,719.30	-	-	-	-
4	Norwood	18506.00	99	1	963.95	-	-	-	-
5	Ridgewood	148196.00	99	1	7,719.30	-	-	-	-
6	Woodlea	148196.00	99	1	7,719.30	-	-	-	-
7	Sea View	27500.00	99	1	1,432.43	-	-	-	-
8	Ness View	173585.00	99	1	9,041.78	-	-	-	-
9	1 Railway Cottages	173585.00	99	1	9,041.78	-	-	-	-
10	2 Railway Cottages	173585.00	99	1	9,041.78	-	-	-	-
11	The Surgery	74000.00	50	1	14,597.44	12,591.88	-	12,591.88	-
12	The Surgery - car park	7200.00	99	1	375.04	-	-	-	-
13	The Surgery	35714.00	99	1	1,860.29	-	-	-	-
14	The Surgery - Doctor	34831.00	99	1	1,814.29	-	-	-	-
15	The Surgery - Flat	141192.00	99	1	7,354.48	-	-	-	-
16					-	-	-	-	-
17	Historic Assets - MU4CD	500.00	15	1	298.45	114.34	251.28	251.28	-
18	Historic Assets - MU5	500.00	15	1	298.45	251.28	251.28	251.28	-
19	Historic Assets - MU6	2000.00	0	1	2,000.00	2,000.00	1,683.95	1,683.95	-
20	Historic Assets - MU7A	500.00	0	1	500.00	500.00	500.00	500.00	500.00
21					-	-	-	-	-
22	Services - MU4CD - 20yr	82916.65	20	1	41,671.08	35,085.93	-	35,085.93	-
23	Services - MU4CD - 50yr	117334.88	50	1	23,145.80	19,965.77	-	19,965.77	-
24	Services - MU4CD - 100yr	50062.88	99	1	2,607.70	-	-	-	-
25	Services - MU5 - 20yr	908641.27	20	1	456,652.10	384,488.82	384,488.82	384,488.82	-
26	Services - MU5 - 50yr	69462.25	50	1	13,702.31	11,819.73	11,819.73	11,819.73	-
27	Services - MU6 - 20yr	168962.22	20	1	84,914.65	84,914.65	84,914.65	84,914.65	-
28	Services - MU7A - 20yr	380728.20	20	1	191,341.01	191,341.01	191,341.01	191,341.01	191,341.01
29	Services - MU7A - 50yr	60826.40	50	1	11,998.78	11,998.78	11,998.78	11,998.78	11,998.78
30	Services - MU7A - 100yr	40550.93	99	1	2,112.24	2,112.24	2,112.24	2,112.24	2,112.24
31					-	-	-	-	-
32					-	-	-	-	-
33					-	-	-	-	-
34					-	-	-	-	-
35					-	-	-	-	-
36					-	-	-	-	-
37					-	-	-	-	-
38					-	-	-	-	-
39					-	-	-	-	-
40					-	-	-	-	-
41					-	-	-	-	-
42					-	-	-	-	-
43					-	-	-	-	-
44					-	-	-	-	-
45					-	-	-	-	-
46					-	-	-	-	-
47					-	-	-	-	-
48					-	-	-	-	-
49					-	-	-	-	-
50					-	-	-	-	-
Totals		3810243.67			942373.37	757184.42	689361.74	757005.31	205952.02
Notes Make one entry in the description column for each property (or group of properties) as this determines subsequent calculation MV = risk free market value at base date for estimate - must be entered on each line when probability distribution is used Equivalent annual value = MV x discount rate (assumes infinite life) Year is year in which there is the probability of loss shown, years must be entered consecutively for each property or group If no distribution is used enter year of expected year of loss and enter 1.0 in probability column Columns G to K show expected values of asset losses with each option, assuming extensions of life entered above The loss is calculated using the formula $PV \text{ loss} = MV * \text{Prob of loss} * (1 - (1 - 1/((1+r)^{(\text{Year of loss}))})) = MV * \text{Prob of loss} / ((1+r)^{(\text{Year of loss})})$ Additional properties can be entered by inserting lines above line 62 and copying all formulae, including hidden calculation in column C									

Damage Cost Calculation Sheet - Do Nothing (Linear)										Sheet Nr.	2
Client/Authority											
North Yorkshire County Council											
Project name											
Sandsend Road Coast Protection Scheme PAR - S											
Option:											
Do-nothing											
Project reference											
9W5572/Z3											
Base date for estimates (year 0)											
Q4 2011											
Scaling factor (e.g. £m, £k, £)											
£											
Initial discount rate											
3.5%											
3.0%											
2.5%											
Prepared (date)											
31/05/2012											
Printed											
31/05/2012											
Prepared by											
Emma Hick											
Checked by											
0											
Checked date											
0											
Year	<	0	10	30	99	>	PV breach/failure	£			
Breach pb	0.100	1.000	1.000	1.000			Ave Annual Damage (overtopping)	£	0.00	/yr	
PV Total Damage								£	100,731.189	(calculated below)	
Year	Discount factor	Prob of a breach/failure	Prob that breach/failure: occurs in year	has not occurred	PV damage due to: breach or failure	over-topping	Road Clearance	Other damages Traffic Disruption	Damages 3	PV total damage	
0	1.000	0.100	0.100	0.900	0.00	0.00	58572.78735			58572.79	
1	0.966	0.190	0.171	0.729	0.00	0.00				0.00	
2	0.934	0.280	0.204	0.525	0.00	0.00	54678.32374			54678.32	
3	0.902	0.370	0.194	0.331	0.00	0.00				0.00	
4	0.871	0.460	0.152	0.179	0.00	0.00	51042.80029			51042.80	
5	0.842	0.550	0.098	0.080	0.00	0.00				0.00	
6	0.814	0.640	0.051	0.029	0.00	0.00	47649.00025			47649.00	
7	0.786	0.730	0.021	0.008	0.00	0.00				0.00	
8	0.759	0.820	0.006	0.001	0.00	0.00	44480.85159			44480.85	
9	0.734	0.910	0.001	0.000	0.00	0.00				0.00	
10	0.709	1.000	0.000	0.000	0.00	0.00	41523.35092			41523.35	
11	0.685	1.000	0.000	0.000	0.00	0.00				0.00	
12	0.662	1.000	0.000	0.000	0.00	0.00	38762.4924			38762.49	
13	0.639	1.000	0.000	0.000	0.00	0.00				0.00	
14	0.618	1.000	0.000	0.000	0.00	0.00	36185.20143			36185.20	
15	0.597	1.000	0.000	0.000	0.00	0.00				0.00	
16	0.577	1.000	0.000	0.000	0.00	0.00	33779.27273			33779.27	
17	0.557	1.000	0.000	0.000	0.00	0.00				0.00	
18	0.538	1.000	0.000	0.000	0.00	0.00	31533.31255			31533.31	
19	0.520	1.000	0.000	0.000	0.00	0.00		3339206.34		3339206.34	
20	0.503	1.000	0.000	0.000	0.00	0.00		3226286.32		3226286.32	
21	0.486	1.000	0.000	0.000	0.00	0.00		3117184.85		3117184.85	
22	0.469	1.000	0.000	0.000	0.00	0.00		3011772.8		3011772.80	
23	0.453	1.000	0.000	0.000	0.00	0.00		2909925.41		2909925.41	
24	0.438	1.000	0.000	0.000	0.00	0.00		2811522.14		2811522.14	
25	0.423	1.000	0.000	0.000	0.00	0.00		2716446.51		2716446.51	
26	0.409	1.000	0.000	0.000	0.00	0.00		2624586		2624586.00	
27	0.395	1.000	0.000	0.000	0.00	0.00		2535831.88		2535831.88	
28	0.382	1.000	0.000	0.000	0.00	0.00		2450079.12		2450079.12	
29	0.369	1.000	0.000	0.000	0.00	0.00		2367226.2		2367226.20	
30	0.356	1.000	0.000	0.000	0.00	0.00		2287175.07		2287175.07	
31	0.346	1.000	0.000	0.000	0.00	0.00		2220558.32		2220558.32	
32	0.336	1.000	0.000	0.000	0.00	0.00		2155881.87		2155881.87	
33	0.326	1.000	0.000	0.000	0.00	0.00		2093089.19		2093089.19	
34	0.317	1.000	0.000	0.000	0.00	0.00		2032125.43		2032125.43	
35	0.307	1.000	0.000	0.000	0.00	0.00		1972937.31		1972937.31	
36	0.298	1.000	0.000	0.000	0.00	0.00		1915473.11		1915473.11	
37	0.290	1.000	0.000	0.000	0.00	0.00		1859682.64		1859682.64	
38	0.281	1.000	0.000	0.000	0.00	0.00		1805517.12		1805517.12	
39	0.273	1.000	0.000	0.000	0.00	0.00		1752929.24		1752929.24	
40	0.265	1.000	0.000	0.000	0.00	0.00		1701873.05		1701873.05	
41	0.257	1.000	0.000	0.000	0.00	0.00		1652303.93		1652303.93	
42	0.250	1.000	0.000	0.000	0.00	0.00		1604178.58		1604178.58	
43	0.243	1.000	0.000	0.000	0.00	0.00		1557454.93		1557454.93	
44	0.236	1.000	0.000	0.000	0.00	0.00		1512092.16		1512092.16	
45	0.229	1.000	0.000	0.000	0.00	0.00		1468050.65		1468050.65	
46	0.222	1.000	0.000	0.000	0.00	0.00		1425291.89		1425291.89	
47	0.216	1.000	0.000	0.000	0.00	0.00		1383778.53		1383778.53	
48	0.209	1.000	0.000	0.000	0.00	0.00		1343474.30		1343474.30	
49	0.203	1.000	0.000	0.000	0.00	0.00		1304343.98		1304343.98	
50	0.197	1.000	0.000	0.000	0.00	0.00		1266353.38		1266353.38	
51	0.192	1.000	0.000	0.000	0.00	0.00		1229469.3		1229469.30	
52	0.186	1.000	0.000	0.000	0.00	0.00		1193659.52		1193659.52	
53	0.181	1.000	0.000	0.000	0.00	0.00		1158892.74		1158892.74	
54	0.175	1.000	0.000	0.000	0.00	0.00		1125138.58		1125138.58	
55	0.170	1.000	0.000	0.000	0.00	0.00		1092367.55		1092367.55	
56	0.165	1.000	0.000	0.000	0.00	0.00		1060551.02		1060551.02	
57	0.160	1.000	0.000	0.000	0.00	0.00		1029661.19		1029661.19	
58	0.156	1.000	0.000	0.000	0.00	0.00		999671.054		999671.05	
59	0.151	1.000	0.000	0.000	0.00	0.00		970554.421		970554.42	
60	0.147	1.000	0.000	0.000	0.00	0.00		942285.846		942285.85	
61	0.143	1.000	0.000	0.000	0.00	0.00		914840.627		914840.63	
62	0.138	1.000	0.000	0.000	0.00	0.00		888194.784		888194.78	
63	0.134	1.000	0.000	0.000	0.00	0.00		862325.033		862325.03	
64	0.130	1.000	0.000	0.000	0.00	0.00		837208.769		837208.77	
65	0.127	1.000	0.000	0.000	0.00	0.00		812824.048		812824.05	
66	0.123	1.000	0.000	0.000	0.00	0.00		789149.561		789149.56	
67	0.119	1.000	0.000	0.000	0.00	0.00		766164.623		766164.62	
68	0.116	1.000	0.000	0.000	0.00	0.00		743849.148		743849.15	
69	0.112	1.000	0.000	0.000	0.00	0.00		722183.639		722183.64	
70	0.109	1.000	0.000	0.000	0.00	0.00		701149.164		701149.16	
71	0.106	1.000	0.000	0.000	0.00	0.00		680727.344		680727.34	
72	0.103	1.000	0.000	0.000	0.00	0.00		660900.334		660900.33	
73	0.100	1.000	0.000	0.000	0.00	0.00		641650.809		641650.81	
74	0.097	1.000	0.000	0.000	0.00	0.00		622961.951		622961.95	
75	0.094	1.000	0.000	0.000	0.00	0.00		604817.428		604817.43	
76	0.092	1.000	0.000	0.000	0.00	0.00		590065.783		590065.78	
77	0.090	1.000	0.000	0.000	0.00	0.00		575673.935		575673.94	
78	0.087	1.000	0.000	0.000	0.00	0.00		561633.107		561633.11	
79	0.085	1.000	0.000	0.000	0.00	0.00		547934.739		547934.74	
80	0.083	1.000	0.000	0.000	0.00	0.00		534570.477		534570.48	
81	0.081	1.000	0.000	0.000	0.00	0.00		521532.173		521532.17	
82	0.079	1.000	0.000	0.000	0.00	0.00		508811.876		508811.88	
83	0.077	1.000	0.000	0.000	0.00	0.00		496401.83		496401.83	
84	0.075	1.000	0.000	0.000	0.00	0.00		484294.468		484294.47	
85	0.074	1.000	0.000	0.000	0.00	0.00		472482.408		472482.41	
86	0.072	1.000	0.000	0.000	0.00	0.00		460958.447		460958.45	
87	0.070	1.000	0.000	0.000	0.00	0.00		449715.558		449715.56	
88	0.068	1.000	0.000	0.000	0.00	0.00		438746.886		438746.89	
89	0.067	1.000	0.000	0.000	0.00	0.00		428045.742		428045.74	
90	0.065	1.000	0.000	0.000	0.00	0.00		417605.602		417605.60	
91	0.063	1.000	0.000	0.000	0.00	0.00		407420.1		407420.10	
92	0.062	1.000	0.000	0.000	0.00	0.00		397483.024		397483.02	
93	0.060	1.000	0.000	0.000	0.00	0.00		387788.316		387788.32	
94	0.059	1.000	0.000	0.000	0.00	0.00		378330.065		378330.06	
95	0.057	1.000	0.000	0.000	0.00	0.00		369102.502		369102.50	
96	0.056	1.000	0.000	0.000	0.00	0.00		360100.002		360100.00	
97	0.055	1.000	0.000	0.000	0.00	0.00		351317.075		351317.08	
98	0.053	1.000	0.000	0.000	0.00	0.00		342748.366		342748.37	
99	0.052	1.000	0.000	0.000	0.00	0.00		334388.65		334388.65	
Total					0.00	0.00				100731189.26	

Damage Cost Calculation Sheet - Do Something (Linear)										Sheet Nr.	3
Client/Authority											
North Yorkshire County Council											
Project name											
Sandsend Road Coast Protection Scheme PAR - S											
Option:											
Do Minimum											
Project reference											
9W5572/Z3											
Base date for estimates (year 0)											
Q4 2011											
Scaling factor (e.g. £m, £k, £)											
£											
Initial discount rate											
3.5%											
3.0%											
2.5%											
Prepared (date)											
31/05/2012											
Printed											
31/05/2012											
Prepared by											
Emma Hick											
Checked by											
0											
Checked date											
0											
Year	<	0	0	49	>	99	PV breach/failure		£		
Breach pb	0.100	0.100	0.200	0.500	Ave Annual Damage (overtopping)		£		/yr		
PV Total Damage							£	100,731,189	(calculated below)		
Year	Discount	Prob of a breach or failure	Prob that breach/failure: occurs in year	has not occurred	PV damage due to: breach or failure	over-topping	Road Clearance	Other damages Traffic Disruption	Damages 3	PV total damage	
0	1.000	0.100	0.100	0.900	0.00	0.00	58572.78735			58572.79	
1	0.966	0.102	0.102	0.898	0.00	0.00				0.00	
2	0.934	0.104	0.104	0.896	0.00	0.00	54678.32374			54678.32	
3	0.902	0.106	0.106	0.894	0.00	0.00				0.00	
4	0.871	0.108	0.108	0.892	0.00	0.00	51042.80029			51042.80	
5	0.842	0.110	0.110	0.890	0.00	0.00				0.00	
6	0.814	0.112	0.112	0.888	0.00	0.00	47649.00025			47649.00	
7	0.786	0.114	0.114	0.886	0.00	0.00				0.00	
8	0.759	0.116	0.116	0.884	0.00	0.00	44480.85159			44480.85	
9	0.734	0.118	0.118	0.882	0.00	0.00				0.00	
10	0.709	0.120	0.120	0.880	0.00	0.00	41523.35092			41523.35	
11	0.685	0.122	0.122	0.878	0.00	0.00				0.00	
12	0.662	0.124	0.124	0.876	0.00	0.00	38762.4924			38762.49	
13	0.639	0.127	0.127	0.873	0.00	0.00				0.00	
14	0.618	0.129	0.129	0.871	0.00	0.00	36185.20143			36185.20	
15	0.597	0.131	0.131	0.869	0.00	0.00				0.00	
16	0.577	0.133	0.133	0.867	0.00	0.00	33779.27273			33779.27	
17	0.557	0.135	0.135	0.865	0.00	0.00				0.00	
18	0.538	0.137	0.137	0.863	0.00	0.00	31533.31255			31533.31	
19	0.520	0.139	0.139	0.861	0.00	0.00				0.00	
20	0.503	0.141	0.141	0.859	0.00	0.00		3339206.34		3339206.34	
21	0.486	0.143	0.143	0.857	0.00	0.00		3226286.32		3226286.32	
22	0.469	0.145	0.145	0.855	0.00	0.00		3117184.85		3117184.85	
23	0.453	0.147	0.147	0.853	0.00	0.00		3011772.8		3011772.80	
24	0.438	0.149	0.149	0.851	0.00	0.00		2909925.41		2909925.41	
25	0.423	0.151	0.151	0.849	0.00	0.00		2811522.14		2811522.14	
26	0.409	0.153	0.153	0.847	0.00	0.00		2716446.51		2716446.51	
27	0.395	0.155	0.155	0.845	0.00	0.00		2624586.00		2624586.00	
28	0.382	0.157	0.157	0.843	0.00	0.00		2535831.88		2535831.88	
29	0.369	0.159	0.159	0.841	0.00	0.00		2450079.12		2450079.12	
30	0.356	0.161	0.161	0.839	0.00	0.00		2367226.2		2367226.20	
31	0.346	0.163	0.163	0.837	0.00	0.00		2287175.07		2287175.07	
32	0.336	0.165	0.165	0.835	0.00	0.00		2220558.32		2220558.32	
33	0.326	0.167	0.167	0.833	0.00	0.00		2155881.87		2155881.87	
34	0.317	0.169	0.169	0.831	0.00	0.00		2093089.19		2093089.19	
35	0.307	0.171	0.171	0.829	0.00	0.00		2032125.43		2032125.43	
36	0.298	0.173	0.173	0.827	0.00	0.00		1972937.31		1972937.31	
37	0.290	0.176	0.176	0.824	0.00	0.00		1915473.11		1915473.11	
38	0.281	0.178	0.178	0.822	0.00	0.00		1859682.64		1859682.64	
39	0.273	0.180	0.180	0.820	0.00	0.00		1805517.12		1805517.12	
40	0.265	0.182	0.182	0.818	0.00	0.00		1752929.24		1752929.24	
41	0.257	0.184	0.184	0.816	0.00	0.00		1701873.05		1701873.05	
42	0.250	0.186	0.186	0.814	0.00	0.00		1652303.93		1652303.93	
43	0.243	0.188	0.188	0.812	0.00	0.00		1604178.58		1604178.58	
44	0.236	0.190	0.190	0.810	0.00	0.00		1557454.93		1557454.93	
45	0.229	0.192	0.192	0.808	0.00	0.00		1512092.16		1512092.16	
46	0.222	0.194	0.194	0.806	0.00	0.00		1468050.65		1468050.65	
47	0.216	0.196	0.196	0.804	0.00	0.00		1425291.89		1425291.89	
48	0.209	0.198	0.198	0.802	0.00	0.00		1383778.53		1383778.53	
49	0.203	0.200	0.200	0.800	0.00	0.00		1343474.3		1343474.30	
50	0.197	0.206	0.206	0.794	0.00	0.00		1304343.98		1304343.98	
51	0.192	0.212	0.212	0.788	0.00	0.00		1266353.38		1266353.38	
52	0.186	0.218	0.218	0.782	0.00	0.00		1229469.3		1229469.30	
53	0.181	0.224	0.224	0.776	0.00	0.00		1193659.52		1193659.52	
54	0.175	0.230	0.230	0.770	0.00	0.00		1158892.74		1158892.74	
55	0.170	0.236	0.236	0.764	0.00	0.00		1125138.58		1125138.58	
56	0.165	0.242	0.242	0.758	0.00	0.00		1092367.55		1092367.55	
57	0.160	0.248	0.248	0.752	0.00	0.00		1060551.02		1060551.02	
58	0.156	0.254	0.254	0.746	0.00	0.00		1029661.19		1029661.19	
59	0.151	0.260	0.260	0.740	0.00	0.00		999671.054		999671.05	
60	0.147	0.266	0.266	0.734	0.00	0.00		970554.421		970554.42	
61	0.143	0.272	0.272	0.728	0.00	0.00		942285.846		942285.85	
62	0.138	0.278	0.278	0.722	0.00	0.00		914840.627		914840.63	
63	0.134	0.284	0.284	0.716	0.00	0.00		888194.784		888194.78	
64	0.130	0.290	0.290	0.710	0.00	0.00		862325.033		862325.03	
65	0.127	0.296	0.296	0.704	0.00	0.00		837208.769		837208.77	
66	0.123	0.302	0.302	0.698	0.00	0.00		812824.048		812824.05	
67	0.119	0.308	0.308	0.692	0.00	0.00		789149.561		789149.56	
68	0.116	0.314	0.314	0.686	0.00	0.00		766164.623		766164.62	
69	0.112	0.320	0.320	0.680	0.00	0.00		743849.148		743849.15	
70	0.109	0.326	0.326	0.674	0.00	0.00		722183.639		722183.64	
71	0.106	0.332	0.332	0.668	0.00	0.00		701149.164		701149.16	
72	0.103	0.338	0.338	0.662	0.00	0.00		680727.344		680727.34	
73	0.100	0.344	0.344	0.656	0.00	0.00		660900.334		660900.33	
74	0.097	0.350	0.350	0.650	0.00	0.00		641650.809		641650.81	
75	0.094	0.356	0.356	0.644	0.00	0.00		622961.951		622961.95	
76	0.092	0.362	0.362	0.638	0.00	0.00		604817.428		604817.43	
77	0.090	0.368	0.368	0.632	0.00	0.00		590065.783		590065.78	
78	0.087	0.374	0.374	0.626	0.00	0.00		575673.935		575673.94	
79	0.085	0.380	0.380	0.620	0.00	0.00		561633.107		561633.11	
80	0.083	0.386	0.386	0.614	0.00	0.00		547934.739		547934.74	
81	0.081	0.392	0.392	0.608	0.00	0.00		534570.477		534570.48	
82	0.079	0.398	0.398	0.602	0.00	0.00		521532.173		521532.17	
83	0.077	0.404	0.404	0.596	0.00	0.00		508811.876		508811.88	
84	0.075	0.410	0.410	0.590	0.00	0.00		496401.83		496401.83	
85	0.074	0.416	0.416	0.584	0.00	0.00		484294.468		484294.47	
86	0.072	0.422	0.422	0.578	0.00	0.00		472482.408		472482.41	
87	0.070	0.428	0.428	0.572	0.00	0.00		460958.447		460958.45	
88	0.068	0.434	0.434	0.566	0.00	0.00		449715.558		449715.56	
89	0.067	0.440	0.440	0.560	0.00	0.00		438746.886		438746.89	
90	0.065	0.446	0.446	0.554	0.00	0.00		428045.742		428045.74	
91	0.063	0.452	0.452	0.548	0.00	0.00		417605.602		417605.60	
92	0.062	0.458	0.458	0.542	0.00	0.00		407420.1		407420.10	
93	0.060	0.464	0.464	0.536	0.00	0.00		397483.024		397483.02	
94	0.059	0.470	0.470	0.530	0.00	0.00		387788.316		387788.32	
95	0.057	0.476	0.476	0.524	0.00	0.00		378330.065		378330.06	
96	0.056	0.482	0.482	0.518	0.00	0.00		369102.502		369102.50	
97	0.055	0.488	0.488	0.512	0.00	0.00		360100.002		360100.00	
98	0.053	0.494	0.494	0.506	0.00	0.00		351317.075		351317.08	
99	0.052	0.500	0.500	0.500	0.00	0.00		342748.366		342748.37	
								334388.65		334388.65	
Total					0.00	0.00				100731189.26	

Damage Cost Calculation Sheet - Do Something (Linear)										Sheet Nr.	4
Client/Authority North Yorkshire County Council											
Project name Sandsend Road Coast Protection Scheme PAR - S											
Option: Realign A174											
Project reference 9W5572/Z3 Q4 2011											
Base date for estimates (year 0) £											
Scaling factor (e.g. £m, £k, £) 3.5%											
Initial discount rate 3.0%											
Prepared (date) 31/05/2012											
Printed 31/05/2012											
Prepared by Emma Hick											
Checked by 0											
Checked date 0											
Year	0	0	49	99	PV breach/failure Ave Annual Damage (overtopping)		£				
Breach pb	0.100	0.100	0.100	0.100	PV Total Damage		£ 1,424,023 (calculated below)				
Year	Discount factor	Prob of a breach or failure	Prob that breach/failure: occurs in year	has not occurred	PV damage due to: breach or failure	over-topping	Road Clearance	Traffic Disruption	Damages 3	PV total damage	
0	1.000	0.100	0.100	0.900	0.00	0.00	92188.474			92188.47	
1	0.966	0.100	0.100	0.900	0.00	0.00				0.00	
2	0.934	0.100	0.100	0.900	0.00	0.00	86058.9269			86058.93	
3	0.902	0.100	0.100	0.900	0.00	0.00				0.00	
4	0.871	0.100	0.100	0.900	0.00	0.00	80336.9292			80336.93	
5	0.842	0.100	0.100	0.900	0.00	0.00				0.00	
6	0.814	0.100	0.100	0.900	0.00	0.00	74995.383			74995.38	
7	0.786	0.100	0.100	0.900	0.00	0.00				0.00	
8	0.759	0.100	0.100	0.900	0.00	0.00	70008.9925			70008.99	
9	0.734	0.100	0.100	0.900	0.00	0.00				0.00	
10	0.709	0.100	0.100	0.900	0.00	0.00	65354.1436			65354.14	
11	0.685	0.100	0.100	0.900	0.00	0.00				0.00	
12	0.662	0.100	0.100	0.900	0.00	0.00	61008.7924			61008.79	
13	0.639	0.100	0.100	0.900	0.00	0.00				0.00	
14	0.618	0.100	0.100	0.900	0.00	0.00	56952.3605			56952.36	
15	0.597	0.100	0.100	0.900	0.00	0.00				0.00	
16	0.577	0.100	0.100	0.900	0.00	0.00	53165.638			53165.64	
17	0.557	0.100	0.100	0.900	0.00	0.00				0.00	
18	0.538	0.100	0.100	0.900	0.00	0.00	49630.6919			49630.69	
19	0.520	0.100	0.100	0.900	0.00	0.00		24448.9198		24448.92	
20	0.503	0.100	0.100	0.900	0.00	0.00		23622.1447		23622.14	
21	0.486	0.100	0.100	0.900	0.00	0.00		22823.3282		22823.33	
22	0.469	0.100	0.100	0.900	0.00	0.00		22051.5249		22051.52	
23	0.453	0.100	0.100	0.900	0.00	0.00		21305.8211		21305.82	
24	0.438	0.100	0.100	0.900	0.00	0.00		20585.3344		20585.33	
25	0.423	0.100	0.100	0.900	0.00	0.00		19889.212		19889.21	
26	0.409	0.100	0.100	0.900	0.00	0.00		19216.63		19216.63	
27	0.395	0.100	0.100	0.900	0.00	0.00		18566.7922		18566.79	
28	0.382	0.100	0.100	0.900	0.00	0.00		17938.9297		17938.93	
29	0.369	0.100	0.100	0.900	0.00	0.00		17332.2992		17332.30	
30	0.356	0.100	0.100	0.900	0.00	0.00		16746.1828		16746.18	
31	0.346	0.100	0.100	0.900	0.00	0.00		16258.4299		16258.43	
32	0.336	0.100	0.100	0.900	0.00	0.00		15784.8834		15784.88	
33	0.326	0.100	0.100	0.900	0.00	0.00		15325.1295		15325.13	
34	0.317	0.100	0.100	0.900	0.00	0.00		14878.7665		14878.77	
35	0.307	0.100	0.100	0.900	0.00	0.00		14445.4044		14445.40	
36	0.298	0.100	0.100	0.900	0.00	0.00		14024.6645		14024.66	
37	0.290	0.100	0.100	0.900	0.00	0.00		13616.1791		13616.18	
38	0.281	0.100	0.100	0.900	0.00	0.00		13219.5914		13219.59	
39	0.273	0.100	0.100	0.900	0.00	0.00		12834.5547		12834.55	
40	0.265	0.100	0.100	0.900	0.00	0.00		12460.7327		12460.73	
41	0.257	0.100	0.100	0.900	0.00	0.00		12097.7988		12097.80	
42	0.250	0.100	0.100	0.900	0.00	0.00		11745.4357		11745.44	
43	0.243	0.100	0.100	0.900	0.00	0.00		11403.3356		11403.34	
44	0.236	0.100	0.100	0.900	0.00	0.00		11071.1996		11071.20	
45	0.229	0.100	0.100	0.900	0.00	0.00		10748.7375		10748.74	
46	0.222	0.100	0.100	0.900	0.00	0.00		10435.6675		10435.67	
47	0.216	0.100	0.100	0.900	0.00	0.00		10131.716		10131.72	
48	0.209	0.100	0.100	0.900	0.00	0.00		9836.61749		9836.62	
49	0.203	0.100	0.100	0.900	0.00	0.00		9550.11407		9550.11	
50	0.197	0.100	0.100	0.900	0.00	0.00		9271.95541		9271.96	
51	0.192	0.100	0.100	0.900	0.00	0.00		9001.89845		9001.90	
52	0.186	0.100	0.100	0.900	0.00	0.00		8739.70723		8739.71	
53	0.181	0.100	0.100	0.900	0.00	0.00		8485.15266		8485.15	
54	0.175	0.100	0.100	0.900	0.00	0.00		8238.01229		8238.01	
55	0.170	0.100	0.100	0.900	0.00	0.00		7998.07018		7998.07	
56	0.165	0.100	0.100	0.900	0.00	0.00		7765.11668		7765.12	
57	0.160	0.100	0.100	0.900	0.00	0.00		7538.94823		7538.95	
58	0.156	0.100	0.100	0.900	0.00	0.00		7319.36722		7319.37	
59	0.151	0.100	0.100	0.900	0.00	0.00		7106.18176		7106.18	
60	0.147	0.100	0.100	0.900	0.00	0.00		6899.2056		6899.21	
61	0.143	0.100	0.100	0.900	0.00	0.00		6698.25786		6698.26	
62	0.138	0.100	0.100	0.900	0.00	0.00		6503.16297		6503.16	
63	0.134	0.100	0.100	0.900	0.00	0.00		6313.75046		6313.75	
64	0.130	0.100	0.100	0.900	0.00	0.00		6129.85481		6129.85	
65	0.127	0.100	0.100	0.900	0.00	0.00		5951.31535		5951.32	
66	0.123	0.100	0.100	0.900	0.00	0.00		5777.97607		5777.98	
67	0.119	0.100	0.100	0.900	0.00	0.00		5609.68551		5609.69	
68	0.116	0.100	0.100	0.900	0.00	0.00		5446.29661		5446.30	
69	0.112	0.100	0.100	0.900	0.00	0.00		5287.66661		5287.67	
70	0.109	0.100	0.100	0.900	0.00	0.00		5133.6569		5133.66	
71	0.106	0.100	0.100	0.900	0.00	0.00		4984.13291		4984.13	
72	0.103	0.100	0.100	0.900	0.00	0.00		4838.96399		4838.96	
73	0.100	0.100	0.100	0.900	0.00	0.00		4698.0233		4698.02	
74	0.097	0.100	0.100	0.900	0.00	0.00		4561.18767		4561.19	
75	0.094	0.100	0.100	0.900	0.00	0.00		4428.33754		4428.34	
76	0.092	0.100	0.100	0.900	0.00	0.00		4320.32931		4320.33	
77	0.090	0.100	0.100	0.900	0.00	0.00		4214.95542		4214.96	
78	0.087	0.100	0.100	0.900	0.00	0.00		4112.15163		4112.15	
79	0.085	0.100	0.100	0.900	0.00	0.00		4011.85525		4011.86	
80	0.083	0.100	0.100	0.900	0.00	0.00		3914.00512		3914.01	
81	0.081	0.100	0.100	0.900	0.00	0.00		3818.54158		3818.54	
82	0.079	0.100	0.100	0.900	0.00	0.00		3725.40642		3725.41	
83	0.077	0.100	0.100	0.900	0.00	0.00		3634.54285		3634.54	
84	0.075	0.100	0.100	0.900	0.00	0.00		3545.89546		3545.90	
85	0.074	0.100	0.100	0.900	0.00	0.00		3459.41021		3459.41	
86	0.072	0.100	0.100	0.900	0.00	0.00		3375.03435		3375.03	
87	0.070	0.100	0.100	0.900	0.00	0.00		3292.71644		3292.72	
88	0.068	0.100	0.100	0.900	0.00	0.00		3212.40628		3212.41	
89	0.067	0.100	0.100	0.900	0.00	0.00		3134.05491		3134.05	
90	0.065	0.100	0.100	0.900	0.00	0.00		3057.61455		3057.61	
91	0.063	0.100	0.100	0.900	0.00	0.00		2983.03858		2983.04	
92	0.062	0.100	0.100	0.900	0.00	0.00		2910.28154		2910.28	
93	0.060	0.100	0.100	0.900	0.00	0.00		2839.29907		2839.30	
94	0.059	0.100	0.100	0.900	0.00	0.00		2770.04787		2770.05	
95	0.057	0.100	0.100	0.900	0.00	0.00		2702.48573		2702.49	
96	0.056	0.100	0.100	0.900	0.00	0.00		2636.57144		2636.57	
97	0.055	0.100	0.100	0.900	0.00	0.00		2572.26482		2572.26	
98	0.053	0.100	0.100	0.900	0.00	0.00		2509.52665		2509.53	
99	0.052	0.100	0.100	0.900	0.00	0.00		2448.31869		2448.32	
Total					0.00	0.00				1424023.05	

Damage Cost Calculation Sheet - Do Something (Linear)										Sheet Nr.	5
Client/Authority											
North Yorkshire County Council											
Project name											
Sandsend Road Coast Protection Scheme PAR - S											
Option:											
Upgrade Minor Roads											
Project reference											
9W5572/Z3											
Base date for estimates (year 0)											
Q4 2011											
Scaling factor (e.g. £m, £k, £)											
£											
Initial discount rate											
3.5%											
3.0%											
2.5%											
Prepared (date)											
31/05/2012											
Printed											
31/05/2012											
Prepared by											
Emma Hick											
Checked by											
0											
Checked date											
0											
Year	<	0	0	49	>	PV breach/failure	£				
Breach pb	0.100	0.100	0.100	0.100	99	Ave Annual Damage (overtopping)	£		/yr		
PV Total Damage							£	62,490,501	(calculated below)		
Year	Discount factor	Prob of a breach or failure	Prob that breach/failure: occurs in year	has not occurred	PV damage due to: breach or failure	Road Clearance	Other damages Traffic Disruption	Damages 3	PV total damage		
0	1.000	0.100	0.100	0.900	0.00	0.00	58572.78735		58572.79		
1	0.966	0.100	0.100	0.900	0.00	0.00			0.00		
2	0.934	0.100	0.100	0.900	0.00	0.00	54678.32374		54678.32		
3	0.902	0.100	0.100	0.900	0.00	0.00			0.00		
4	0.871	0.100	0.100	0.900	0.00	0.00	51042.80029		51042.80		
5	0.842	0.100	0.100	0.900	0.00	0.00			0.00		
6	0.814	0.100	0.100	0.900	0.00	0.00	47649.00025		47649.00		
7	0.786	0.100	0.100	0.900	0.00	0.00			0.00		
8	0.759	0.100	0.100	0.900	0.00	0.00	44480.85159		44480.85		
9	0.734	0.100	0.100	0.900	0.00	0.00			0.00		
10	0.709	0.100	0.100	0.900	0.00	0.00	41523.35092		41523.35		
11	0.685	0.100	0.100	0.900	0.00	0.00			0.00		
12	0.662	0.100	0.100	0.900	0.00	0.00	38762.4924		38762.49		
13	0.639	0.100	0.100	0.900	0.00	0.00			0.00		
14	0.618	0.100	0.100	0.900	0.00	0.00	36185.20143		36185.20		
15	0.597	0.100	0.100	0.900	0.00	0.00			0.00		
16	0.577	0.100	0.100	0.900	0.00	0.00	33779.27273		33779.27		
17	0.557	0.100	0.100	0.900	0.00	0.00			0.00		
18	0.538	0.100	0.100	0.900	0.00	0.00	31533.31255		31533.31		
19	0.520	0.100	0.100	0.900	0.00	0.00		2066001.13	2066001.13		
20	0.503	0.100	0.100	0.900	0.00	0.00		1996136.36	1996136.36		
21	0.486	0.100	0.100	0.900	0.00	0.00		1928634.16	1928634.16		
22	0.469	0.100	0.100	0.900	0.00	0.00		1863414.65	1863414.65		
23	0.453	0.100	0.100	0.900	0.00	0.00		1800400.63	1800400.63		
24	0.438	0.100	0.100	0.900	0.00	0.00		1739517.51	1739517.51		
25	0.423	0.100	0.100	0.900	0.00	0.00		1680693.25	1680693.25		
26	0.409	0.100	0.100	0.900	0.00	0.00		1623858.21	1623858.21		
27	0.395	0.100	0.100	0.900	0.00	0.00		1568945.13	1568945.13		
28	0.382	0.100	0.100	0.900	0.00	0.00		1515889.02	1515889.02		
29	0.369	0.100	0.100	0.900	0.00	0.00		1464627.07	1464627.07		
30	0.356	0.100	0.100	0.900	0.00	0.00		1415098.62	1415098.62		
31	0.346	0.100	0.100	0.900	0.00	0.00		1373882.15	1373882.15		
32	0.336	0.100	0.100	0.900	0.00	0.00		1333866.17	1333866.17		
33	0.326	0.100	0.100	0.900	0.00	0.00		1295015.7	1295015.70		
34	0.317	0.100	0.100	0.900	0.00	0.00		1257296.79	1257296.79		
35	0.307	0.100	0.100	0.900	0.00	0.00		1220676.5	1220676.50		
36	0.298	0.100	0.100	0.900	0.00	0.00		1185122.82	1185122.82		
37	0.290	0.100	0.100	0.900	0.00	0.00		1150604.67	1150604.67		
38	0.281	0.100	0.100	0.900	0.00	0.00		1117091.92	1117091.92		
39	0.273	0.100	0.100	0.900	0.00	0.00		1084555.26	1084555.26		
40	0.265	0.100	0.100	0.900	0.00	0.00		1052966.27	1052966.27		
41	0.257	0.100	0.100	0.900	0.00	0.00		1022297.35	1022297.35		
42	0.250	0.100	0.100	0.900	0.00	0.00		992521.7	992521.70		
43	0.243	0.100	0.100	0.900	0.00	0.00		963613.301	963613.30		
44	0.236	0.100	0.100	0.900	0.00	0.00		935546.894	935546.89		
45	0.229	0.100	0.100	0.900	0.00	0.00		908297.955	908297.96		
46	0.222	0.100	0.100	0.900	0.00	0.00		881842.675	881842.68		
47	0.216	0.100	0.100	0.900	0.00	0.00		856157.937	856157.94		
48	0.209	0.100	0.100	0.900	0.00	0.00		831221.298	831221.30		
49	0.203	0.100	0.100	0.900	0.00	0.00		807010.969	807010.97		
50	0.197	0.100	0.100	0.900	0.00	0.00		783505.795	783505.80		
51	0.192	0.100	0.100	0.900	0.00	0.00		760685.238	760685.24		
52	0.186	0.100	0.100	0.900	0.00	0.00		738529.357	738529.36		
53	0.181	0.100	0.100	0.900	0.00	0.00		717018.794	717018.79		
54	0.175	0.100	0.100	0.900	0.00	0.00		696134.751	696134.75		
55	0.170	0.100	0.100	0.900	0.00	0.00		675858.982	675858.98		
56	0.165	0.100	0.100	0.900	0.00	0.00		656173.768	656173.77		
57	0.160	0.100	0.100	0.900	0.00	0.00		637061.911	637061.91		
58	0.156	0.100	0.100	0.900	0.00	0.00		618506.71	618506.71		
59	0.151	0.100	0.100	0.900	0.00	0.00		600491.951	600491.95		
60	0.147	0.100	0.100	0.900	0.00	0.00		583001.894	583001.89		
61	0.143	0.100	0.100	0.900	0.00	0.00		566021.257	566021.26		
62	0.138	0.100	0.100	0.900	0.00	0.00		549535.201	549535.20		
63	0.134	0.100	0.100	0.900	0.00	0.00		533529.321	533529.32		
64	0.130	0.100	0.100	0.900	0.00	0.00		517989.632	517989.63		
65	0.127	0.100	0.100	0.900	0.00	0.00		502902.556	502902.56		
66	0.123	0.100	0.100	0.900	0.00	0.00		488254.908	488254.91		
67	0.119	0.100	0.100	0.900	0.00	0.00		474033.892	474033.89		
68	0.116	0.100	0.100	0.900	0.00	0.00		460227.079	460227.08		
69	0.112	0.100	0.100	0.900	0.00	0.00		446822.407	446822.41		
70	0.109	0.100	0.100	0.900	0.00	0.00		433808.162	433808.16		
71	0.106	0.100	0.100	0.900	0.00	0.00		421172.973	421172.97		
72	0.103	0.100	0.100	0.900	0.00	0.00		408905.799	408905.80		
73	0.100	0.100	0.100	0.900	0.00	0.00		396995.921	396995.92		
74	0.097	0.100	0.100	0.900	0.00	0.00		385432.933	385432.93		
75	0.094	0.100	0.100	0.900	0.00	0.00		374206.731	374206.73		
76	0.092	0.100	0.100	0.900	0.00	0.00		365079.738	365079.74		
77	0.090	0.100	0.100	0.900	0.00	0.00		356175.354	356175.35		
78	0.087	0.100	0.100	0.900	0.00	0.00		347488.15	347488.15		
79	0.085	0.100	0.100	0.900	0.00	0.00		339012.83	339012.83		
80	0.083	0.100	0.100	0.900	0.00	0.00		330744.224	330744.22		
81	0.081	0.100	0.100	0.900	0.00	0.00		322677.292	322677.29		
82	0.079	0.100	0.100	0.900	0.00	0.00		314807.114	314807.11		
83	0.077	0.100	0.100	0.900	0.00	0.00		307128.892	307128.89		
84	0.075	0.100	0.100	0.900	0.00	0.00		299637.943	299637.94		
85	0.074	0.100	0.100	0.900	0.00	0.00		292329.7	292329.70		
86	0.072	0.100	0.100	0.900	0.00	0.00		285199.708	285199.71		
87	0.070	0.100	0.100	0.900	0.00	0.00		278243.617	278243.62		
88	0.068	0.100	0.100	0.900	0.00	0.00		271457.188	271457.19		
89	0.067	0.100	0.100	0.900	0.00	0.00		264836.281	264836.28		
90	0.065	0.100	0.100	0.900	0.00	0.00		258376.859	258376.86		
91	0.063	0.100	0.100	0.900	0.00	0.00		252074.985	252074.98		
92	0.062	0.100	0.100	0.900	0.00	0.00		245926.814	245926.81		
93	0.060	0.100	0.100	0.900	0.00	0.00		239928.599	239928.60		
94	0.059	0.100	0.100	0.900	0.00	0.00		234076.682	234076.68		
95	0.057	0.100	0.100	0.900	0.00	0.00		228367.495	228367.49		
96	0.056	0.100	0.100	0.900	0.00	0.00		222797.556	222797.56		
97	0.055	0.100	0.100	0.900	0.00	0.00		217363.469	217363.47		
98	0.053	0.100	0.100	0.900	0.00	0.00		212061.921	212061.92		
99	0.052	0.100	0.100	0.900	0.00	0.00		206889.679	206889.68		
Total					0.00	0.00			62490501.49		

Damage Cost Calculation Sheet - Do Something (Linear)										Sheet Nr.	6
Client/Authority North Yorkshire County Council											
Project name Sandsend Road Coast Protection Scheme PAR - S											
Option: Retain A174 on existing alignment											
Project reference 9W5572/Z3											
Base date for estimates (year 0) Q4 2011											
Scaling factor (e.g. £m, £k, £) £											
Initial discount rate 3.5%											
Prepared (date) 31/05/2012											
Printed 31/05/2012											
Prepared by Emma Hick											
Checked by 0											
Checked date 0											
Year	<	0	0	49	>	PV breach/failure	£				
Breach pb	0.100	0.100	0.100	0.100		Ave Annual Damage (overtopping)	£	/yr			
PV Total Damage							£	92,188 (calculated below)			
Year	Discount	Prob of a breach or failure	Prob that breach/failure: occurs in year	has not occurred	PV damage due to: breach or failure	over-topping	Road Clearance	Other damages Traffic Disruption	Damages 3	PV total damage	
0	1.000	0.100	0.100	0.900	0.00	0.00	92188.474			92188.47	
1	0.966	0.100	0.100	0.900	0.00	0.00				0.00	
2	0.934	0.100	0.100	0.900	0.00	0.00				0.00	
3	0.902	0.100	0.100	0.900	0.00	0.00				0.00	
4	0.871	0.100	0.100	0.900	0.00	0.00				0.00	
5	0.842	0.100	0.100	0.900	0.00	0.00				0.00	
6	0.814	0.100	0.100	0.900	0.00	0.00				0.00	
7	0.786	0.100	0.100	0.900	0.00	0.00				0.00	
8	0.759	0.100	0.100	0.900	0.00	0.00				0.00	
9	0.734	0.100	0.100	0.900	0.00	0.00				0.00	
10	0.709	0.100	0.100	0.900	0.00	0.00				0.00	
11	0.685	0.100	0.100	0.900	0.00	0.00				0.00	
12	0.662	0.100	0.100	0.900	0.00	0.00				0.00	
13	0.639	0.100	0.100	0.900	0.00	0.00				0.00	
14	0.618	0.100	0.100	0.900	0.00	0.00				0.00	
15	0.597	0.100	0.100	0.900	0.00	0.00				0.00	
16	0.577	0.100	0.100	0.900	0.00	0.00				0.00	
17	0.557	0.100	0.100	0.900	0.00	0.00				0.00	
18	0.538	0.100	0.100	0.900	0.00	0.00				0.00	
19	0.520	0.100	0.100	0.900	0.00	0.00				0.00	
20	0.503	0.100	0.100	0.900	0.00	0.00				0.00	
21	0.486	0.100	0.100	0.900	0.00	0.00				0.00	
22	0.469	0.100	0.100	0.900	0.00	0.00				0.00	
23	0.453	0.100	0.100	0.900	0.00	0.00				0.00	
24	0.438	0.100	0.100	0.900	0.00	0.00				0.00	
25	0.423	0.100	0.100	0.900	0.00	0.00				0.00	
26	0.409	0.100	0.100	0.900	0.00	0.00				0.00	
27	0.395	0.100	0.100	0.900	0.00	0.00				0.00	
28	0.382	0.100	0.100	0.900	0.00	0.00				0.00	
29	0.369	0.100	0.100	0.900	0.00	0.00				0.00	
30	0.356	0.100	0.100	0.900	0.00	0.00				0.00	
31	0.346	0.100	0.100	0.900	0.00	0.00				0.00	
32	0.336	0.100	0.100	0.900	0.00	0.00				0.00	
33	0.326	0.100	0.100	0.900	0.00	0.00				0.00	
34	0.317	0.100	0.100	0.900	0.00	0.00				0.00	
35	0.307	0.100	0.100	0.900	0.00	0.00				0.00	
36	0.298	0.100	0.100	0.900	0.00	0.00				0.00	
37	0.290	0.100	0.100	0.900	0.00	0.00				0.00	
38	0.281	0.100	0.100	0.900	0.00	0.00				0.00	
39	0.273	0.100	0.100	0.900	0.00	0.00				0.00	
40	0.265	0.100	0.100	0.900	0.00	0.00				0.00	
41	0.257	0.100	0.100	0.900	0.00	0.00				0.00	
42	0.250	0.100	0.100	0.900	0.00	0.00				0.00	
43	0.243	0.100	0.100	0.900	0.00	0.00				0.00	
44	0.236	0.100	0.100	0.900	0.00	0.00				0.00	
45	0.229	0.100	0.100	0.900	0.00	0.00				0.00	
46	0.222	0.100	0.100	0.900	0.00	0.00				0.00	
47	0.216	0.100	0.100	0.900	0.00	0.00				0.00	
48	0.209	0.100	0.100	0.900	0.00	0.00				0.00	
49	0.203	0.100	0.100	0.900	0.00	0.00				0.00	
50	0.197	0.100	0.100	0.900	0.00	0.00				0.00	
51	0.192	0.100	0.100	0.900	0.00	0.00				0.00	
52	0.186	0.100	0.100	0.900	0.00	0.00				0.00	
53	0.181	0.100	0.100	0.900	0.00	0.00				0.00	
54	0.175	0.100	0.100	0.900	0.00	0.00				0.00	
55	0.170	0.100	0.100	0.900	0.00	0.00				0.00	
56	0.165	0.100	0.100	0.900	0.00	0.00				0.00	
57	0.160	0.100	0.100	0.900	0.00	0.00				0.00	
58	0.156	0.100	0.100	0.900	0.00	0.00				0.00	
59	0.151	0.100	0.100	0.900	0.00	0.00				0.00	
60	0.147	0.100	0.100	0.900	0.00	0.00				0.00	
61	0.143	0.100	0.100	0.900	0.00	0.00				0.00	
62	0.138	0.100	0.100	0.900	0.00	0.00				0.00	
63	0.134	0.100	0.100	0.900	0.00	0.00				0.00	
64	0.130	0.100	0.100	0.900	0.00	0.00				0.00	
65	0.127	0.100	0.100	0.900	0.00	0.00				0.00	
66	0.123	0.100	0.100	0.900	0.00	0.00				0.00	
67	0.119	0.100	0.100	0.900	0.00	0.00				0.00	
68	0.116	0.100	0.100	0.900	0.00	0.00				0.00	
69	0.112	0.100	0.100	0.900	0.00	0.00				0.00	
70	0.109	0.100	0.100	0.900	0.00	0.00				0.00	
71	0.106	0.100	0.100	0.900	0.00	0.00				0.00	
72	0.103	0.100	0.100	0.900	0.00	0.00				0.00	
73	0.100	0.100	0.100	0.900	0.00	0.00				0.00	
74	0.097	0.100	0.100	0.900	0.00	0.00				0.00	
75	0.094	0.100	0.100	0.900	0.00	0.00				0.00	
76	0.092	0.100	0.100	0.900	0.00	0.00				0.00	
77	0.090	0.100	0.100	0.900	0.00	0.00				0.00	
78	0.087	0.100	0.100	0.900	0.00	0.00				0.00	
79	0.085	0.100	0.100	0.900	0.00	0.00				0.00	
80	0.083	0.100	0.100	0.900	0.00	0.00				0.00	
81	0.081	0.100	0.100	0.900	0.00	0.00				0.00	
82	0.079	0.100	0.100	0.900	0.00	0.00				0.00	
83	0.077	0.100	0.100	0.900	0.00	0.00				0.00	
84	0.075	0.100	0.100	0.900	0.00	0.00				0.00	
85	0.074	0.100	0.100	0.900	0.00	0.00				0.00	
86	0.072	0.100	0.100	0.900	0.00	0.00				0.00	
87	0.070	0.100	0.100	0.900	0.00	0.00				0.00	
88	0.068	0.100	0.100	0.900	0.00	0.00				0.00	
89	0.067	0.100	0.100	0.900	0.00	0.00				0.00	
90	0.065	0.100	0.100	0.900	0.00	0.00				0.00	
91	0.063	0.100	0.100	0.900	0.00	0.00				0.00	
92	0.062	0.100	0.100	0.900	0.00	0.00				0.00	
93	0.060	0.100	0.100	0.900	0.00	0.00				0.00	
94	0.059	0.100	0.100	0.900	0.00	0.00				0.00	
95	0.057	0.100	0.100	0.900	0.00	0.00				0.00	
96	0.056	0.100	0.100	0.900	0.00	0.00				0.00	
97	0.055	0.100	0.100	0.900	0.00	0.00				0.00	
98	0.053	0.100	0.100	0.900	0.00	0.00				0.00	
99	0.052	0.100	0.100	0.900	0.00	0.00				0.00	
Total					0.00	0.00				92188.47	

Client/Authority North Yorkshire County Council										Results £										Prepared (date) Printed Prepared by Checked by Checked date		00/01/1900 00/01/1900 0 0 0																																					
Project name Sandsend Road Coast Protection Scheme PA										Option 1 Do-nothing 0										Option 2 Do Minimum 1,546,929										Option 3 Realign A174 27,050,547										Option 4 Upgrade Minor Roads 13,480,441										Option 5 Retain A174 on current alignment 8,724,405									
Project reference Base date for estimates (year 0) Scaling factor (e.g. £m, £k, £) Initial discount rate										Option 1 Do-nothing										Option 2 Do Minimum										Option 3 Realign A174										Option 4 Upgrade Minor Roads										Option 5 Retain A174 on current alignment									
Q4 2011 £ 3.5%										Capital Maint. Other Negative costs										Capital Maint. Other Negative costs										Capital Maint. Other Negative costs										Capital Maint. Other Negative costs										Capital Maint. Other Negative costs									
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