



West Winch Housing Access Road

Environment Statement Chapter 11: Water Environment Appendix 12.2: Drainage Network Water Quality Assessment Sub Appendix C: Spillage Risk Assessment Data

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1 HEWRAT assessment of risk from accidental spillage to surface water receptors

1.1.1 **Table 1.1 to Table 1.3** below provide a full summary of the input parameters and results for each individual outfall assessed.



Table 1.1 – Baseline Parameters

Outfall Reference	Easting	Northing	Waterbody Type	Road Type	Urban or Rural	Location (response time for emergency services)
Outfall 1	563516	314776	Surface watercourse	A	Rural	> 1 hour
Outfall 2	563649	315076	Surface watercourse	A	Rural	> 1 hour
Outfall 3	562941	316167	Surface watercourse	A	Rural	> 1 hour
Outfall 4	563864	316301	Surface watercourse	A	Rural	> 1 hour
Outfall 5	564076	317396	Surface watercourse	A	Rural	> 1 hour
Outfall 6	564176	317268	Surface watercourse	A	Rural	> 1 hour
Outfall 7	563357	317980	Surface watercourse	A	Rural	> 1 hour

Table 1.2 – Junction Parameters

Outfall Reference	Junction Type	AADT DS 2042	% Heavy Goods Vehicles	Length of highway drained (m)	Spillage Factor (no/10³²HGVkm/year)
Outfall 1	Roundabout	34,583	6	175	3.09
Outfall 1	No Junction	34,583	6	625	0.29
Outfall 1	Side Road	34,583	6	200	0.93
Outfall 2	No Junction	34,583	6	820	0.29
Outfall 3	No Junction	34,583	6	175	0.29
Outfall 3	Roundabout	34,583	6	200	3.09
Outfall 4	Side Road	34,583	6	400	0.93
Outfall 4	No Junction	34,583	6	800	0.29
Outfall 4	Roundabout	34,583	6	190	3.09
Outfall 5	No Junction	34,583	6	435	0.29
Outfall 5	Roundabout	34,583	6	150	3.09
Outfall 6	No Junction	34,583	6	525	0.29
Outfall 6	Roundabout	34,583	6	200	3.09
Outfall 7	Slip Road	34,583	6	920	0.83
Outfall 7	No Junction	34,583	6	350	0.29

Table 1.3 – Results

Outfall Reference	Existing Measures Risk Reducing Factor	Proposed Measures Risk Reducing Factor	Annual probability of serious pollution incident (without mitigation)	Is risk greater than 1%?	Annual probability of serious pollution incident (with mitigation)	Is risk greater than 0.5%?
Outfall 1	1	0.6	0.05%	No	0.03%	No
Outfall 2	1	0.6	0.01%	No	0.01%	No
Outfall 3	1	0.6	0.04%	No	0.02%	No
Outfall 4	1	0.6	0.07%	No	0.04%	No
Outfall 5	1	0.6	0.05%	No	0.03%	No
Outfall 6	1	0.6	0.04%	No	0.03%	No
Outfall 7	1	0.6	0.05%	No	0.03%	No
Outfalls 5 and 6	1	0.6	0.08%	No	0.05%	No