

ASPECTS AND IMPACT REGISTER/RISK ASSESSMENT FOR WATERCOURSES INCLUDING RIVERS, PANS, WETLANDS, SPRINGS, DRAINAGE LINES  
 COMPILED BY: Andrew Husted (Pr Sci Nat 400213/11)

Nr.	Phases	Activity	Aspect	Impact	Severity								Consequence	Frequency of activity	Frequency of impact	Legal Issues	Detection	Likelihood	Significance	Risk Rating	Control Measures	Borderline LOW MODERATE Rating Classes	Type Watercourse
					Flow Regime	Physico & Chemical (Water Quality)	Habitat (Geomorph+Vegetation)	Biota	Severity	Spatial scale	Duration												
	C	Underground Mining	Blasting (dislodging of rock)		2	2	1	2	1.75	3	4	8.75	2	3	1	3	9	78.75	Moderate*	Section 7.3	Low	Floodplain, valley bottom wetlands, seepage wetlands, depressions and rivers	
			Fractures in bedrock		2	1	2	2	1.75	3	4	8.75	3	2	1	3	9	78.75	Moderate*		Low		
			Disruption (draining of aquifers)		3	1	2	1	1.75	3	4	8.75	3	2	1	3	9	78.75	Moderate*		Low		
			Operation of machinery, vehicles and equipment		1	2	2	2	1.75	2	2	5.75	3	2	1	1	7	40.25			Low		
2	O	Underground Mining	Blasting (dislodging of rock)		3	2	3	3	2.75	3	2	7.75	2	3	1	3	9	69.75	Moderate*	Section 7.4	Low		
			Fractures in bedrock		3	2	3	3	2.75	3	2	7.75	3	2	1	3	9	69.75	Moderate*		Low		
			Disruption (draining of aquifers)		4	2	3	3	3	3	2	8	3	2	1	3	9	72	Moderate*		Low		
			Operation of machinery, vehicles and equipment		1	2	2	2	1.75	2	2	5.75	3	2	1	1	7	40.25			Low		
3	C	Closure: Underground Mining	Pollution of water resources		1	4	2	2	2.25	3	5	10.25	3	2	1	1	7	71.75	Moderate*	Section 7.5	Low		
			Management of water quality		1	2	2	2	1.75	2	5	8.75	3	2	1	3	9	78.75	Moderate*		Low		
			Operation of machinery, vehicles and equipment		1	2	2	2	1.75	2	5	8.75	3	2	1	1	7	61.25	Moderate*		Low		

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					Flow Regime	Physico & Chemical (Water Quality)	Habitat (Geomorph+Vegetation)	Biota	Severity	Spatial scale	Duration												
1	C	Vent Shafts	Clearing of vegetation		1	1	1	2	1.25	1	1	3.25	1	4	1	2	8	26	Low	Section 8.3	Low	Floodplain, valley bottom wetlands, seepage wetlands, depressions and rivers	
			Stripping and stockpiling of topsoil		1	1	1	1	1	1	1	3	1	3	1	2	7	21	Low		Low		
			Establish working area		1	1	1	1	1	1	1	3	1	2	1	2	6	18	Low		Low		
			Digging of settling pond		1	1	1	1	1	1	1	3	1	1	1	1	4	12	Low		Low		
			Construct shaft collar		1	1	1	1	1	1	1	3	1	3	1	2	7	21	Low		Low		
			Drilling of pilot hole		1	1	1	2	1.25	1	1	3.25	2	3	1	1	7	22.75	Low		Low		
			Reaming		1	1	1	1	1	1	1	4	3	2	1	1	7	28	Low		Low		
			Installation of goose neck		1	1	1	1	1	1	1	3	1	1	1	1	4	12	Low		Low		
			Creation of berm for storm water		1	1	1	1	1	1	1	3	1	2	1	2	6	18	Low		Low		
			Erection of fence (security / access control)		1	1	1	2	1.25	1	1	3.25	1	1	1	2	5	16.25	Low		Low		
			Water use for drilling		1	1	1	1	1	1	1	3	2	2	1	2	7	21	Low		Low		
			Removal of pilot cuttings		1	1	1	1	1	1	1	3	1	2	1	2	6	18	Low		Low		
			Vehicle access		1	1	1	2	1.25	1	2	4.25	3	3	1	2	9	38.25	Low		Low		
			Leaks and spillages from machinery, equipment & vehicles		1	1	1	1	1	1	1	4	3	3	1	3	10	40	Low		Low		
			Solid waste disposal		1	1	1	2	1.25	1	2	4.25	2	2	1	2	7	29.75	Low		Low		
			Human sanitation & ablutions		1	1	1	1	1	1	1	4	2	2	1	3	8	32	Low		Low		
			Re-fuelling of machinery and vehicles		1	1	1	1	1	1	1	4	2	2	1	2	7	28	Low		Low		
2	O	Vent Shafts	Shaft collar		1	1	1	1	1	1	4	6	1	1	1	5	30	Low	Section 8.3	Low			
			Fence		1	1	1	2	1.25	1	4	6.25	1	1	1	1	4	25		Low	Low		
			Berm for storm water management		1	1	1	1	1	1	4	6	1	1	1	5	30	Low		Low			
3	C	Closure: Vent Shafts	Removal of structures		1	1	1	2	1.25	1	2	4.25	2	3	1	2	8	34	Low	Section 8.3	Low		
			Backfill of shaft		1	1	1	1	1	1	2	4	1	1	1	2	5	20	Low		Low		
			Capping with concrete slab		1	1	1	1	1	1	2	4	1	2	1	2	6	24	Low		Low		