

Table 19: DWS Risk Impact Matrix for the proposed Mogalakwena Mini Water Scheme Upgrade

Severity		Construction Phase						
Aspect	Flow Regime	Water Quality	Habitat	Biota	Severity	Spatial scale	Duration	Consequence
Operation of equipment and machinery	1	3	2	2	2	2	2	6
Removal of vegetation	1	1	2	2	1,5	2	2	5,5
Stripping and stockpiling of top soil	1	1	2	2	1,5	2	2	5,5
Storm water run-off	2	2	3	3	2,5	3	2	7,5
Spills and leaks	1	4	2	4	2,75	3	2	7,75
Storage of chemicals, mixes and fuel	1	3	1	2	1,75	3	2	6,75
Removal of existing infrastructure	1	3	3	2	2,25	2	2	6,25
Clearing of areas for infrastructure	1	2	3	2	2	2	2	6
Additional Associated Infrastructure	1	2	2	2	1,75	2	2	5,75
Installation of pumps	1	3	2	2	2	2	2	6
Domestic and industrial waste	1	3	3	3	2,5	3	2	7,5
		Operational Phase						
Abstraction	4	1	4	3	3	3	4	10
Operation of pumps (Diesel and electricity)	1	3	1	3	2	3	4	9
Maintenance of pumps	1	3	1	3	2	3	4	9



Table 20: DWS Risk Impact Matrix for the proposed project continued

Aspect	Frequency of activity	Frequency of impact	Legal Issues	Detection	Likelihood	Sig.	Without Mitigation	With Mitigation
Construction Phase								
Operation of equipment and machinery	3	3	1	1	8	48	Low	Low
Removal of vegetation	2	3	1	2	8	44	Low	Low
Stripping and stockpiling of top soil	2	2	1	2	7	38,5	Low	Low
Storm water run-off	3	3	1	2	9	67,5	Moderate	Low*
Spills and leaks	2	2	1	3	8	62	Moderate	Low*
Storage of chemicals, mixes and fuel	2	3	1	2	8	54	Low	Low
Removal of existing infrastructure	2	2	1	1	6	37,5	Low	Low
Clearing of areas for infrastructure	2	2	1	1	6	36	Low	Low
Additional Associated Infrastructure	2	2	1	2	7	40,25	Low	Low
Installation of pumps	2	2	1	2	7	42	Low	Low
Domestic and industrial waste	3	3	1	3	10	75	Moderate	Low*
Operational Phase								
Abstraction	5	5	5	3	18	180	High	High
Operation of pumps (Diesel and electricity)	5	5	1	2	13	117	Moderate	Moderate
Maintenance of pumps	3	2	1	2	8	72	Moderate	Low*

(*) denotes - In accordance with General Notice 509 "Risk is determined after considering all listed control / mitigation measures. Borderline Low / Moderate risk scores can be manually adapted downwards up to a maximum of 25 points (from a score of 80) subject to listing of additional mitigation measures detailed below."

