

PROJECT: WETLAND FUNCTIONAL AND IMPACT ASSESSMENT FOR THE PROPOSED GLENCORE CLOVER ALLOYS RIETFontein BENEFICIATION PLANT PROJECT

RISK ASSESSMENT MATRIX for Section 21 (c) and (i) Water Use activities - Version 2.1.1

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 Date of assessment: 11-May-25

Signature: 

Risk to be scored for all relevant phases of the project (factoring in specified control measures). MUST BE COMPLETED BY SACNASP PROFESSIONAL MEMBER REGISTERED IN AN APPROPRIATE FIELD OF EXPERTISE.

Phase	Activity	Impact	Potentially affected watercourses			Intensity of Impact on Resource Quality					Overall Intensity (max = 10)	Spatial scale (max = 5)	Duration (max = 5)	Severity (max = 20)	Importance rating (max = 5)	Consequence (max = 100)	Likelihood (Probability) of impact	Significance (max = 100)	Risk Rating	Confidence level
			Name/s	PES	Overall Watercourse Importance	Abiotic Habitat (Drivers)			Biota (Responses)											
						Hydrology	Water Quality	Geomorph	Vegetation	Fauna										
CONSTRUCTION	Clearing of vegetation and site preparation to facilitate the development of the infrastructure	Loss of wetland area	HGM 2	E	Moderate	3	3	3	3	3	6	1	2	9	3	27	100%	27	L	High
		Altering surface flow patterns	HGM 2	E	Moderate	3	2	1	2	2	6	1	2	9	3	27	100%	27	L	High
		Erosion of surrounding landscape and subsequently the watercourses	HGM 2	E	Moderate	0	2	2	2	1	4	1	2	7	3	21	80%	16.8	L	High
		Sedimentation and siltation of watercourses	HGM 2	E	Moderate	1	2	2	2	3	6	1	2	9	3	27	80%	21.6	L	High
		Proliferation of invasive alien plants	HGM 2	E	Moderate	1	1	1	2	2	4	1	2	7	3	21	80%	16.8	L	High
	Excavating and reshaping for the infrastructure	Altering surface and subsurface flow patterns	HGM 2	E	Moderate	3	1	1	1	1	6	1	2	9	3	27	20%	5.4	L	High
		Erosion of surrounding landscape and subsequently the watercourses	HGM 2	E	Moderate	1	2	2	2	2	4	1	2	7	3	21	20%	4.2	L	High
		Sedimentation and siltation of watercourses	HGM 2	E	Moderate	2	2	2	2	2	4	1	2	7	3	21	20%	4.2	L	High
	Soil stockpiling	Altering surface and subsurface flow patterns	HGM 2	E	Moderate	3	1	1	1	1	6	1	2	9	3	27	60%	16.2	L	High
		Erosion of surrounding landscape and subsequently the watercourses	HGM 2	E	Moderate	1	2	2	2	2	4	1	2	7	3	21	60%	12.6	L	High
		Sedimentation and siltation of watercourses	HGM 2	E	Moderate	2	2	2	2	2	4	1	2	7	3	21	60%	12.6	L	High
	Storage of chemicals, mixes and fuel	Impaired water quality from spills and leaks	HGM 2	E	Moderate	1	2	0	2	2	4	1	2	7	3	21	40%	8.4	L	High
	Operation of heavy machinery and equipment within and in proximity to wetlands	Altering surface flow patterns through hardened surfaces	HGM 2	E	Moderate	3	1	1	1	1	6	1	2	9	3	27	80%	21.6	L	High
		Erosion of surrounding landscape and subsequently the watercourses	HGM 2	E	Moderate	1	2	2	2	2	4	1	2	7	3	21	80%	16.8	L	High
		Sedimentation and siltation of watercourses	HGM 2	E	Moderate	2	2	2	2	2	4	1	2	7	3	21	60%	12.6	L	High
		Wetland vegetation disturbance and proliferation of invasive alien plants	HGM 2	E	Moderate	1	1	1	2	2	4	1	2	7	3	21	60%	12.6	L	High
		Impaired water quality from spills and leaks	HGM 2	E	Moderate	1	2	0	2	2	4	1	2	7	3	21	40%	8.4	L	High
	Installation and assembly of drainage systems	Altering surface and subsurface flow patterns	HGM 2	E	Moderate	3	2	1	1	1	6	1	2	9	3	27	100%	27	L	High
	Backfilling of residual excavated areas	Altering surface and subsurface flow patterns	HGM 2	E	Moderate	3	1	1	1	1	6	1	2	9	3	27	80%	21.6	L	High
		Erosion of surrounding landscape and subsequently the watercourses	HGM 2	E	Moderate	1	2	2	2	2	4	1	2	7	3	21	80%	16.8	L	High
Sedimentation and siltation of watercourses		HGM 2	E	Moderate	2	2	2	2	2	4	1	2	7	3	21	60%	12.6	L	High	
Domestic and industrial waste	Wetland degradation	HGM 2	E	Moderate	2	2	2	2	2	4	1	2	7	3	21	40%	8.4	L	High	
	Impaired water quality	HGM 2	E	Moderate	1	2	1	2	2	4	1	2	7	3	21	40%	8.4	L	High	
Ablution facilities	Impaired water quality from spills and leaks	HGM 2	E	Moderate	2	2	1	2	2	4	1	2	7	3	21	60%	12.6	L	High	
OPERATIONAL	Operation of Beneficiation Plant	Altering surface and subsurface flow patterns	HGM 2	E	Moderate	3	2	1	2	2	6	1	2	9	3	27	60%	16.2	L	High
		Sedimentation and siltation of watercourses	HGM 2	E	Moderate	1	2	2	2	3	6	1	2	9	3	27	60%	16.2	L	High
		Impaired water quality from residual materials entering the system	HGM 2	E	Moderate	1	3	1	3	3	6	1	2	9	3	27	60%	16.2	L	High
	Storage of chemicals, mixes and fuel (Leak and spill hazard).	Impaired water quality from spills and leaks	HGM 2	E	Moderate	1	3	1	2	3	6	1	2	9	3	27	80%	21.6	L	High
		Impaired water quality	HGM 2	E	Moderate	1	2	1	2	3	6	1	2	9	3	27	80%	21.6	L	High
	Waste management.	Wetland degradation	HGM 2	E	Moderate	2	2	2	2	2	4	1	2	7	3	21	80%	16.8	L	High
		Altering surface and subsurface flow patterns	HGM 2	E	Moderate	4	3	1	2	3	8	1	2	11	3	33	80%	26.4	L	High
Operation of drainage systems	Sedimentation and siltation of watercourses	HGM 2	E	Moderate	1	2	2	2	3	6	1	2	9	3	27	80%	21.6	L	High	
	Impaired water quality from residual contaminants entering the system	HGM 2	E	Moderate	1	3	1	3	3	6	1	2	9	3	27	100%	27	L	High	